

Army Lodging Wellness Recommendation



Fort Richardson - Final Submittal

August 15, 2003

3D/I

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Introduction

Section 1 Wellness Recommendation

The Army Lodging Wellness Program is conducted under the direction and guidance of Headquarters Army, Lodging Division (CFSC). The goal of this Lodging Wellness Plan is to provide a comprehensive assessment and planning tool to support long term capitalization of Army Lodging facilities. The Demand Analysis determines installation Lodging requirements, and reviews off-post Lodging availability and cost, arriving at the most economical solution for meeting total transient requirements and providing a final determination of the appropriate number and configuration of on-post Lodging rooms. Individual Lodging facility condition (building and building systems) and functional assessments are included with both recommendations and costs. Facility improvement and renovation versus replacement/new construction recommendations are developed based on the individual facility assessments and cost. A Lodging Master Plan for the installation is developed including renovation, replacement/new construction, and proposed new facility siting. A final recommendation defines the method for achieving the final wellness solution for the installation and will assist with project planning.

Methodology

Demand

- Demand for Lodging facilities is analyzed and adjusted for atypical past occurrences and for expected changes in the installation's population, housing, or mission. Two primary methods are used to calculate the optimum number of rooms: the number necessary to meet 80% of official demand and the number projected to be the most efficient from an operating cost perspective.
- The off-post private market is assessed for capacity and representative rates. A determination is made if the private market has the capability to handle overflow requirements of official demand.
- Room mix recommendation is based on the segmentation of the Permanent Change of Station (PCS)/Temporary Duty (TDY) mix and the expected lengths of stay. This produces the final determination of the appropriate number and configuration of rooms for the installation.

Assessment

- Existing Lodging facilities are assessed based on building and building system conditions followed by an assessment for conformance to the Army Lodging functional standards. Facilities assessed to be in fair to good condition, and meeting the majority of

functional requirements, are considered for renovation. Renovation of Lodging facilities found in poor condition and configured significantly different than current standards will typically exceed 50% of the replacement costs and are recommended for replacement/new construction. This decision is supported by renovation cost comparisons as well as the assessment documentation.

- The age, condition, and existing configuration of all of the existing Lodging buildings support a finding of replacement through new construction in lieu of renovation.
- Force protection construction criteria has a significant impact on new construction. This Wellness recommendation, including building assessment, site analysis, and proposed Lodging construction, incorporates these requirements from the UFC 4-010-01, in our analysis and recommendations. Consistent with this guidance, force protection mitigation is not considered in renovation unless the renovation cost exceeds 50% of the replacement cost for a facility.

Demand Summary

Based on the historic and expected demand pattern at this facility, it is our recommendation that the number of rooms be sized using the “80% of Official Demand” criterion. Using this criterion, we expect an occupancy rate of 81% which meets 80% of the projected official demand.

Room Count and Mix Recommendation

- 95 rooms
- Proposed room mix:
 - 36 standard guest rooms;
 - 21 extended-stay guest rooms offering a kitchenette;
 - 38 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

The demand analysis has determined a need of 95 rooms; however, based on existing and proposed building configurations, the actual number recommended for the Fort Richardson Wellness Plan will be 96 rooms.

Lodging Summary Demand Summary

The following Lodging for Fort Richardson is summarized by building, including number of existing rooms and number of proposed rooms determined as part of the installation Wellness recommendation. The table additionally indicates the number of rooms required for a new Lodging facility based on buildings not proposed for re-use due to poor existing conditions and high renovation costs. The number of rooms for the New Proposed Lodging Facility reflects the proposed layout and does not match the exact Demand numbers, because of building configuration.

Building Number	Existing Rooms					Wellness Recommendation (FY 08)			
	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf	Other Rooms	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf
Wellness Recommendation based on Demand Analysis									
						95	36	21	38
Existing Lodging Facilities									
53	15	13		2		0			
55	18	17		1		0			
57	12			12		0			
58	11			11		0			
1107	19		19			0			
1113	18	18				0			
1114	18	18				0			
Totals	111	66	19	26	0	0	0	0	0
New Proposed Lodging Facility									
						96	36	20	40
Total Lodging Rooms									
						96	36	20	40

Summary of Room Count and Mix based on Configuration

- 96 rooms
 - 36 standard guest rooms;
 - 20 extended-stay guest rooms offering a kitchenette;
 - 40 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

Cost Summary

Project Cost

The following table summarizes the Condition Analysis, Renovation, and Replacement Cost by individual Lodging facility. The Wellness Recommendation indicates cost by building based on recommendation, including the proposed facility cost.

Building Number	Existing Units					Wellness Recommendation (FY 08)			
	Total Rooms	Condition Analysis Cost*	Renovation Cost**	Replacement Cost	% Condition Analysis or Renovation Cost Ratio	Total Rooms	Total Cost	Renovation Cost	New Construction Cost
Existing Lodging Facilities									
53	15	***	\$ 2,436,660	\$ 3,116,325	78.19%	0			
55	18	***	\$ 2,436,660	\$ 3,116,325	78.19%	0			
57	12	***	\$ 2,708,300	\$ 3,116,325	86.91%	0			
58	11	***	\$ 2,708,300	\$ 3,116,325	86.91%	0			
1107	19	***	\$ 2,436,660	\$ 3,116,325	78.19%	0			
1113	18	***	\$ 2,777,460	\$ 3,116,325	89.13%	0			
1114	18	***	\$ 2,777,460	\$ 3,116,325	89.13%	0			
Totals	111					0	\$ -	\$ -	\$ -
New Proposed Lodging Facility									
						96	\$ 19,427,535		\$ 19,427,535
Total									
						96	\$ 19,427,535	\$ -	\$ 19,427,535

* The Condition Analysis Cost is for making the building well based on Army Lodging Standards without changing how the building functions.

** The Renovation Cost is for making the building well based on Army Lodging Standards including making functional changes.

*** If the Condition Analysis Cost is under 50% of the Replacement Cost, the Renovation Cost is used.

**** If the Condition Analysis Cost is over 50% of the Replacement Cost, a Renovation Cost is not included.

* * * * * Renovation Cost includes Condition Assessment items and Renovation Cost to meet Army Lodging Standards.

Cost per Room Comparison

The Wellness Recommendation includes review of off-post Lodging costs to the proposed new construction costs. The new construction costs include operating costs, capital assessment costs, and cap-ex expenditures. The following table summarizes this comparison per room for FY08.

	New Building
Cost per Room at Fort Richardson	\$ 77.38
Off Post Cost per Room	\$ 105.53
Difference between On-Post and Off-Post Lodging per room	\$ 28.15
% Savings of On-Post to Off-Post Lodging	26.7%

The Cost Per Room at Fort Richardson is based on:

Renovation / New Construction Cost w/ inflation to FY 08

Current Operating Cost w/ inflation to FY 08

Cap Ex Cost

Capital Assessment Cost to FY 08

Off Post Cost is based on current room rate average with inflation to FY 08

Due to this cost difference and the savings of 26.7%, it is our recommendation that the Army construct a new Lodging facility at Fort Richardson in lieu of using off-post lodging to support the determined demand requirement. Off-post lodging will continue to be used for demand beyond the on-post room requirement.

Recommendations / Conclusions

The Wellness Recommendation for Fort Richardson is to construct a new main Lodging facility on-post to accommodate the public and back-of-the-house spaces and total of 96 rooms on-post, to meet the 95 room requirement. Existing Lodging facilities that do not meet condition and functional requirements based on cost shall be removed from the Lodging inventory. A synopsis of recommended building actions follows:

- Construct a new Lodging facility to include 96 rooms. This building will include all public areas and back-of-the-house Lodging functions for the total on-post Lodging inventory.
- Remove all existing on-post Lodging buildings from the Lodging inventory due to condition of existing building systems and/or cost to renovate to meet Army functional criteria.

Cost Summary

The cost for this recommendation will be:

New Lodging Facility	\$19,427,535
Total	\$19,427,535

Phasing

Recommend the following phasing as funding is identified.

- Minimize investment in infrastructure for buildings 53, 55, 57, 58, 1107, 1113, and 1114.
- Based on the proposed Master Plan, Building 5 will need to be removed prior to construction of new Lodging Facility.
- Construct new Lodging facility prior to removing existing Lodging facilities from inventory and removing the limited back-of-the-house currently available for day-to-day operation.
- Remove buildings 53, 55, 57, 58, 1107, 1113, and 1114 from the Lodging inventory. Consider demolition of these facilities to allow future development in the area.

Section 2 Lodging Master Plan

Installation Summary

Fort Richardson, constructed in 1940, is bounded by the City of Anchorage, Alaska, and occupies more than 60,000 acres of woodlands along the Chugach Mountain Range. Fort Richardson's current mission is to command and control Army forces in Alaska and to provide the services, facilities, and infrastructure to support and train rapid deployment forces from Alaska to the Pacific theater.

The Fort Richardson Installation Design Guide, completed in 1996, incorporates specific installation requirements. Land use, future development, and architectural compatibility are integral components of the Guide. Current Lodging room night requirements, Army guidance on Lodging facility design standards, and force protection construction standards required additional analyses and were incorporated into the recommendations of this Lodging Wellness Plan.

The character of Fort Richardson has been preserved and enhanced through the use of stone, brick, and stucco. Medium to low-sloped standing seam roofs and darker toned brick exemplify the desired architecture of the installation.

Master Plan Summary

All Lodging facilities at Fort Richardson were constructed in various phases and are located in several areas of the installation. The primary Lodging area is located in the center of the installation, in close proximity to a majority of the community facilities. This area is recommended for planning future Lodging growth.

The proposed Fort Richardson Lodging Master Plan reflects 96 Lodging rooms with replacement of all existing Lodging buildings into a new Lodging facility. This facility will combine required rooms, public areas and service functions into a cohesive Lodging facility in support of the installation requirements. A thorough condition and functional assessment of the existing buildings noted significant deficiencies. Additionally, renovation of these buildings to the new Lodging standards and building configuration design is not viable within the 50% threshold.

Existing Lodging Facilities



Lodging Building 53

Building 53, constructed in 1949, is comprised of 15 rooms. Although this facility was renovated within the last 5 years, it does not meet Lodging standards and cannot be reconfigured without significant reconstruction. The cost to make improvements and bring this building up to meet Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove building 53 from the Lodging inventory, allowing the installation to determine an alternate use for the facility. This facility will be removed from the Fort Richardson Wellness Solution and Lodging master plan.



Lodging Buildings 55, 57, 58, 1113, and 1114

The building type depicted by these buildings was repeated throughout the installation. Building 55, built in 1951, has 18 rooms. Building 57, built in 1952, has 12 rooms. Building 58, built in 1952, has 11 rooms. Buildings 1113 and 1114, built in 1954, have 18 rooms. The type of room only varies with regards to the quantity standard rooms it possesses. For instance, a family suite comprised of three bedrooms and one sitting room is actually two standard rooms with a shared bath connected through a doorway. These buildings are operational but do not meet Lodging standards and cannot be reconfigured without significant reconstruction. The cost to make improvements and bring these facilities up to meet Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove these buildings from the Lodging inventory, allowing the installation to determine an alternate use for the facilities. These facilities will be removed from the Fort Richardson Wellness Solution and Lodging master plan.

Lodging Building 1107

Building 1107, constructed in 1952, has 19 guest rooms. This building received a 1.4M renovation within the last few years but does not meet Lodging standards and cannot be reconfigured without significant reconstruction. The cost to make improvements and bring this building up to meet Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove this building from the Lodging inventory, allowing the installation to determine an alternate use for the facility. This facility will be removed from the Fort Richardson Wellness Solution and Lodging master plan.

New Lodging Building

The proposed Lodging facility is comprised of 96 rooms; 40 family suites, 36 standard guest rooms, and 20 extended stay rooms. The lobby and back-of-the-house spaces will be sized for these 96 Lodging rooms.

The proposed new construction will be sited where Building 5 now exists. Fort Richardson is currently planning the construction of a replacement building for the current Building 5 function and the demolition of Building 5 once the new facility is constructed. This action allows for the redevelopment of that area into a new Lodging campus. The lobby will be constructed of glass exterior curtain walls to enhance the entry, while allowing maximum view and circulation. The proposed building construction is steel frame with CMU infill walls, sloped standing seam metal roof, and a brick exterior veneer. The architectural guidance for Fort Richardson is incorporated into the cost of the new facility.

The mass and scale of the proposed building is critical. Based on the number of required rooms and to limit the length of the wings, the recommendation of this plan is to provide a three story facility. .

Areas and Occupancy

The following chart indicates all spaces and size based on program and the proposed conceptual building plan.

ROOM / SPACE	PROGRAMMED FLOOR AREA			PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area	
Total Area including 9% Add On Factor (does not include Outside Areas)*			67,955	69,363
Public Areas			20,646	20,264
Exterior Entrance	N/A	N/A		-
Vestibule	1	1	-	-
Lobby (includes vestibule)	1	500-800	500-800	1,126
Front Desk	2 station	100	100	174
Bell Cart Station	3	12	36	42
Breakfast Bar (Seat/Svc) - min.	1	550	550	610
Passenger Elevators	2 elev. @ 3 floors	64	384	384
Stairs	6	230	4,140	2,810
Public Corridors	-	-	12,000	12,718
Public Telephone Area	2	6	12	12
Vending - Full Service	2	70	140	199
Vending - Ice Only	1	30	30	60
Women - Lobby	1	200	200	205
Men - Lobby	1	200	200	205
Multi-Purpose Room - (250 s.f. min.)	1	250	250	279
Study Rooms (1 per 25 ext stay units)	-	250	-	-
Guest Laundries (2 sets w/d per 75 units)	2	192	384	506
Gear Wash Rooms - (170 s.f. min.)	6	170	1,020	346
Guest Bulk Storage (1 per 4 family suites)	10	25 ea. 40 w/circ.	400	588
Guest Rooms	96		34,800	34,800
Guest Room - Standard	36	300	10,800	10,800
Guest Room - Ext. Stay	20	300	6,000	6,000
Guest Room - Family Suites	40	450	18,000	18,000
Back-of-House Areas			6,898	8,655
Manager's Office	1	180	180	181
Assistant Manager Offices	1	120	120	121
Front Office Manager	1	100	100	100
Admin. Offices	2 staff	200-250	200-250	399
Cash Room	1	75	75	99
Luggage Storage	1	75	75	76
Admin. Conference Room	1	250	250	279
Housekeeping Office	1	120	120	120
Dirty/Clean Linen Storage	-	50	-	-
In-House Laundry - (500 s.f. minimum)	1	500	500	531
Receiving Office	1	75	75	80
Maintenance Area	1	175	175	207
Kitchen Prep Room	1	150	150	178
Break Room	1	210	210	212
Staff Toilet - Men	1	100	100	94
Staff Toilet - Women	1	100	100	94
Access Corridor	-	-	820	987
Receiving -min.	1	150	150	187
Housekeeping Rooms	1 per 15 units	128	896	1,005
Service Elevator	1	80	240	255
Data/Commo Room	1	100	100	118
Switch Closets	2	16	32	284
Janitor Closet	1	50	50	50
Mechanical Room	-	-	766	897
General Storage Room - (500 s.f. min.)	1	500	500	911
Bulk Storage Room - (500 s.f. min.)	1	500	500	637
Electrical Room	2	140	280	468
Elevator Equipment Room	1	84	84	85
Exterior			400	
Playground (Outdoor)	1	-	-	-
Grounds Maintenance	1	400	400	-

* Add on factor to cover s.f. for partitions and any space not included in numbers above.

Cost Summary

The New Construction Cost \$19,427,535

- All costs are adjusted by the Area Cost Factor of 168% for Fort Richardson

Cost Analysis

Summary of Project Replacement Cost (based on 69,363 s.f.)

CSI	Percent	Amount
02 Site Work	3.01%	\$395,283.42
Parking Lots		\$135,340.80
Site Earthwork		\$259,942.62
03 Concrete	20.68%	\$2,713,685.42
Floor Construction		\$1,869,787.82
Slab on Grade		\$192,452.40
Stair Construction		\$74,088.00
Standard Foundations		\$577,357.20
04 Masonry	4.58%	\$601,320.56
Exterior Walls		\$601,320.56
07 Thermal & Moisture Protection	6.11%	\$801,267.73
Roof Construction		\$328,725.92
Roof Coverings		\$472,541.82
08 Doors & Windows	7.30%	\$958,475.28
Exterior Doors		\$29,956.08
Exterior Windows		\$712,320.00
Interior Doors		\$216,199.20
09 Finishes	19.29%	\$2,531,521.87
Ceiling Finishes		\$713,433.54
Floor Finishes		\$812,484.85
Partitions		\$566,185.47
Wall Finishes		\$439,418.01
10 Specialties	0.04%	\$5,694.36
Fittings		\$5,694.36
11 Equipment	2.91%	\$381,417.96
Commercial Equipment		\$25,410.00
Other Equipment		\$356,007.96
13 Special Construction	5.30%	\$695,138.07
Communications & Security		\$312,927.60
Sprinklers		\$382,210.47
14 Conveying Systems	2.75%	\$360,864.00
Elevators and Lifts		\$360,864.00
15 Mechanical	16.73%	\$2,195,298.00
Cooling Generating Svstems		\$923,771.52
Domestic Water Dist		\$356,832.00
Plumbing Fixtures		\$914,694.48
16 Electrical	7.64%	\$1,002,221.64
Electrical Service & Distribution		\$994,846.44

Site Lighting		\$7,375.20
19 FF&E	3.66%	\$480,000.00
Interior FF&E allowance		\$480,000.00
Total Raw Cost	100.00%	\$13,122,188.31
Additional Hard Cost (Template: Army Lodging New Construction)		
Parameter Name	Percent	Amount
Spirit	0.50%	\$72,172.04
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$1,312,218.83
Total Additional Hard Cost		\$1,384,390.87
Soft Cost (Template: Army Lodging New Construction)		
Parameter Name	Percent	Amount
Contingency	5.00%	\$725,328.96
SIOH Conus	6.50%	\$990,074.03
Design	10.00%	\$1,450,657.92
08 MYr Inflation Fct	9.93%	\$1,754,893.16
Total Soft Cost		\$4,920,954.06
Total Project Cost for Replacement		\$19,427,533.24

INSERT PROPOSED CAMPUS AREA ANALYSIS DRAWING HERE

INSERT LODGING MASTER PLAN DRAWING HERE

INSERT **PROPOSED LODGING FACILITY (FLRS. 1-3)** DRAWINGS HERE

Overview

Section 3 Demand Analysis

Fort Richardson is headquarters for United States Army, Alaska (USARAK). USARAK's mission is to train and equip forces to deploy in support of combat operations and other operations worldwide, conduct operations in cold regions and mountainous terrain, serve as land force component command for joint operations and provide installation support for Alaska.

The installation's largest military tenant is the Alaska National Guard, with facilities at Camp Carroll and Camp Denali. Fort Richardson has 2,289 soldiers with more than 3,000 family members. The installation employs about 1,300 Army and DOD civilian employees. It encompasses 62,000 acres.

Historically, Fort Richardson's lodging demand was 43% Temporary Duty (TDY) personnel, 34% Permanent Change of Station (PCS), and 23% unofficial travelers. Many travelers use the installation for various activities because of its location in a tourist area. Unofficial demand is not used in the calculation of recommended room inventory.

Most TDY stays are 14 days or less, averaging three days. Most PCS stays are for more than two weeks, averaging 35 days. Before 2002, PCS demand was approximately 56% of total official demand and TDY demand was just over 30% of total official demand. Because 2002 was unusual due to increased operations, it is estimated PCS demand will be closer to 60% of Fort Richardson's demand as in previous years.

The table below describes Fort Richardson's official demand population.

Fort Richardson Official Market Demand Analysis		
	TDY	PCS
Total Demand:	43%	34%
Market Segmentation:		
Individuals	100%	< 10%
Families	0%	> 90%
Average Length of Stay (Days):		
14 days or less	64% (3 days)	25% (5 days)
More than 14 days	36% (21 days)	75% (35 days)

Source: Fort Richardson Lodging Administration, compiled by 3/DI

On Post Inventory

Fort Richardson has 111 lodging rooms in 7 buildings.

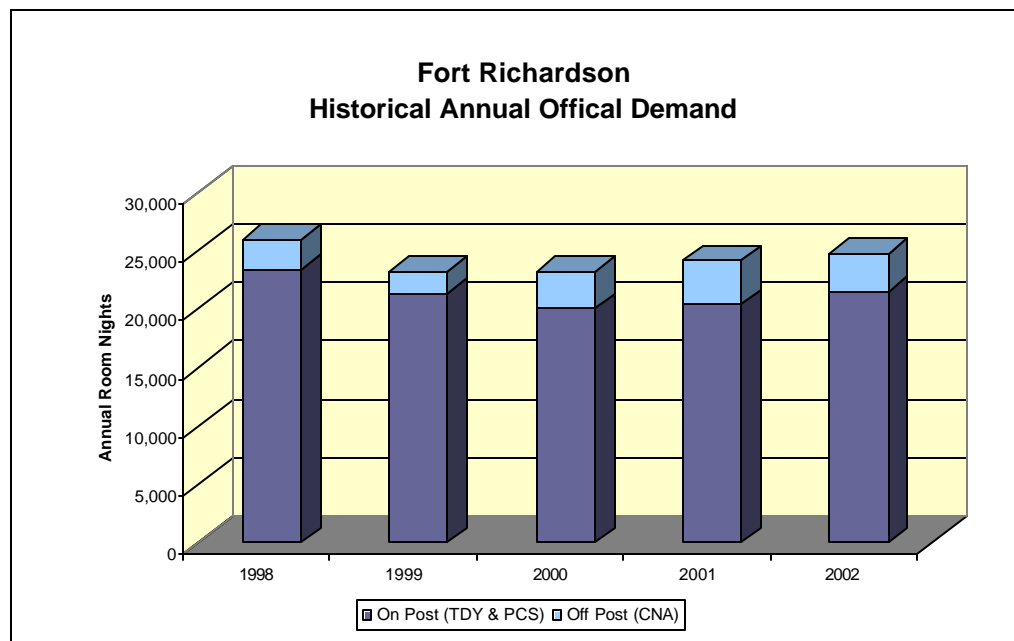
Demand and Utilization

Data Summary

Official demand, inclusive of Certificates of Non-Availability (CNAs), averaged 64 to 71 room nights per day for the five years. In 2002, demand averaged 68 room nights per day. Demand is fairly consistent given the large population gain from 1998 to 2002. Fort Richardson experienced increased operations in 2002 similar to many other military installations.

CNAs increased from an average of 5 to 7 room nights per day in 1998 and 1999 and from 9 to 10 room nights per day in 2002. This increase is not significant and can be attributed to the installation's population increase.

The following chart summarizes Fort Richardson's historical data; it identifies the annual official demand both on and off post.



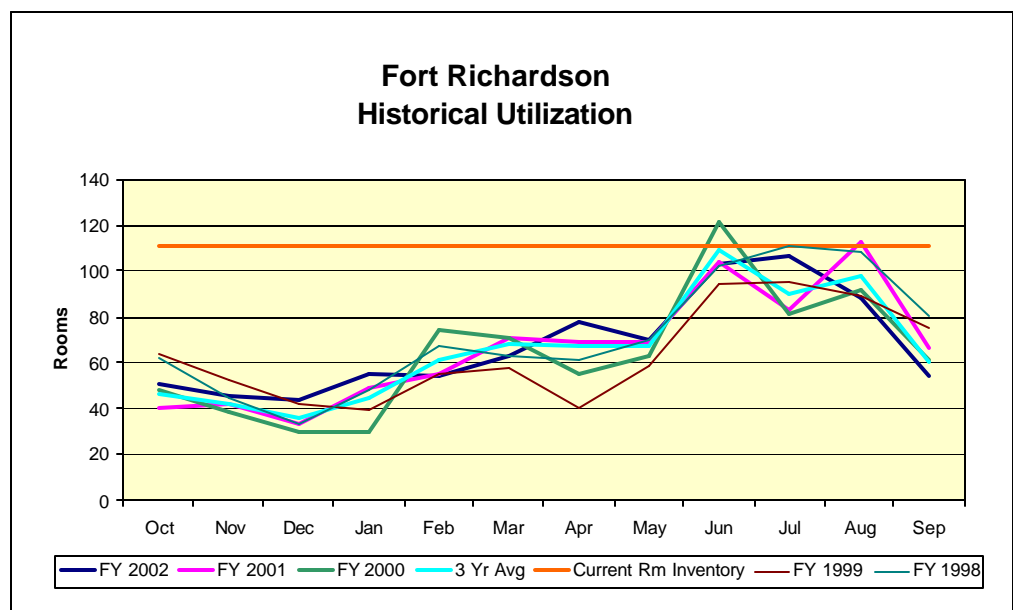
Source: Fort Richardson Lodging Administration, compiled by 3/DI

There is a declining occupancy at Fort Richardson; it fell from 79% in 1998 to 71% in 2002. This change in occupancy level was due to a

higher level of PCS demand and comparatively less TDY demand. From 2000 to 2002, PCS demand increased 59% and TDY demand decreased 19%. The length of stay for the PCS market was longer than the TDY market, and lower occupancy occurred when CNAs were issued for the PCS traveler.

Based on historical data, the total official demand is predictable. On an annualized basis there is a risk of falling below 60% occupancy in December but averaging closer to 90% or better from May through September.

The following chart summarizes historical utilization data by month.



Source: Fort Richardson Lodging Administration, compiled by 3/DI

Monthly variances between years were insignificant. Each year's demand pattern was consistent from month to month.

Seasonality

The records indicate a definite seasonality to Fort Richardson's lodging demand cycle. Because of its location, peak demand occurred in June, July, and August with official demand averaging 90 to 110 rooms per night over the last three years. The lower demand months were October through January, with official demand averaging 36 to 47 rooms per night.

Factors Influencing Demand

Fort Richardson has 1,216 family housing rooms and expects to increase family housing stock by 53 rooms next year. This should not affect PCS demand for short-term housing because the wait for on-post housing is relatively short--one month--and the Enlisted Personnel and Officer population is not expected to increase at the installation for the next five years.

Although the installation is not attempting to create enough lodging facilities to accommodate unofficial travelers, there is still an unofficial market that represents opportunity for revenue when rooms are available. The number of unofficial travelers appears to be declining, but could increase again once mobilization and deployment returns to pre-2002 levels.

Total installation population is estimated to remain stable over the next five years except for an increase associated with the addition of the Stryker Brigade Combat Team.

Private Market Capability

The commercial lodging market has approximately 4,500 rooms within a 30-minute rush-hour driving time radius of the installation. It is estimated more than 75% of these rooms are located in properties representing the major lodging chains. Increasing room demand resulted in the addition of one new commercial property on average per year for the past five years; and addition of 21%. Review of the monthly occupancies of the major hotel chains immediately around Fort Richardson showed peak seasonal demand in summer. In fact, room rates can more than double during the summer months when the occupancy rate pushes 95%.

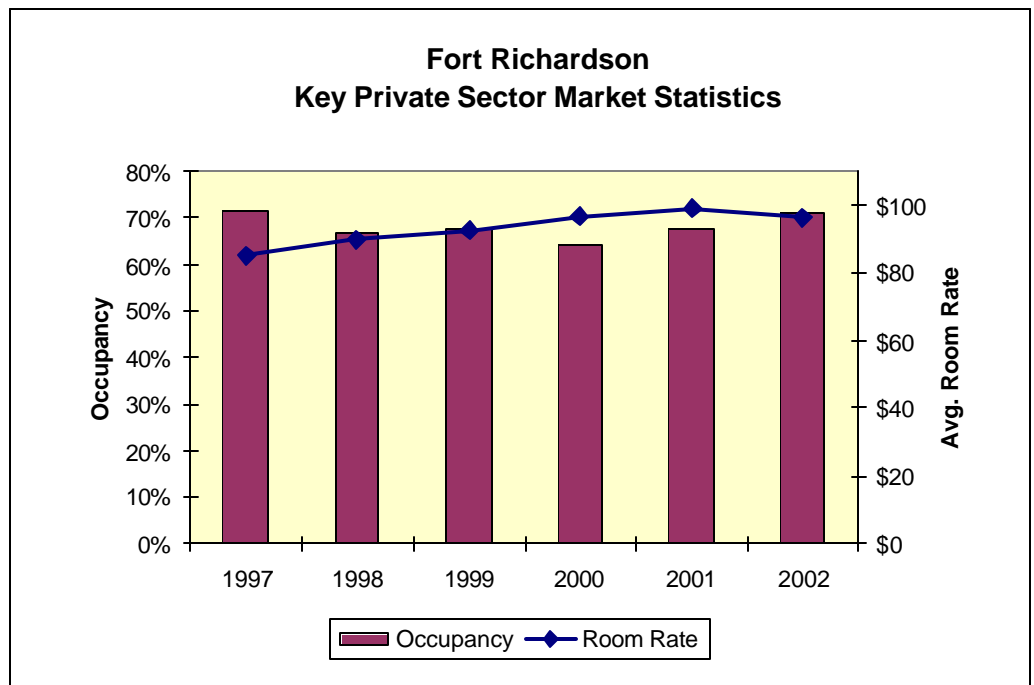
Fort Richardson lodging per diem rates were seasonally adjusted to adequately cover the costs for off-post lodging. Fort Richardson's summer per diem rate is \$170 when the highest average off-post rate is \$142. Likewise, the average winter off-post room rate is \$70 and the per diem rate is adjusted to \$85. The actual average government rates charged are \$149 in the summer and \$75 in the winter season.

The 2002 Average Daily Rate (ADR) is \$96.00 for 51 properties, and the government rate is \$105.00 at the 17 off-post referral properties. These rates are consistent with the \$119.00 average annual per diem rate for Fort Richardson, and the ability to lodge personnel off post within government rates is possible.

Elmendorf Air Force Base (EAFB) is co-located with Fort Richardson. EAFB has approximately 200 Visiting Officers Quarters (VOQ) rooms, 162 Visiting Airmen Quarters (VAQ) rooms, and 100 Long-term Stay (LTS) rooms.

EAFB could support limited overflow from Fort Richardson in the off season. Army personnel stay at EAFB because EAFB lodging rates are lower than commercial rates and Fort Richardson's rates. Also, EAFB offers both full kitchens and kitchenettes. However, EAFB normally operates at capacity in the summer and at a 50% occupancy level in the winter. EAFB accommodated only an average of 15 people from Fort Richardson annually.

The following chart describes key private market statistics.



Source: Smith Travel Research, compiled by 3/DI

With the commercial market adding rooms, it appears reasonable to assume that the local market has sufficient capacity to support Fort Richardson's overflow lodging requirements.

Demand Requirement Determination

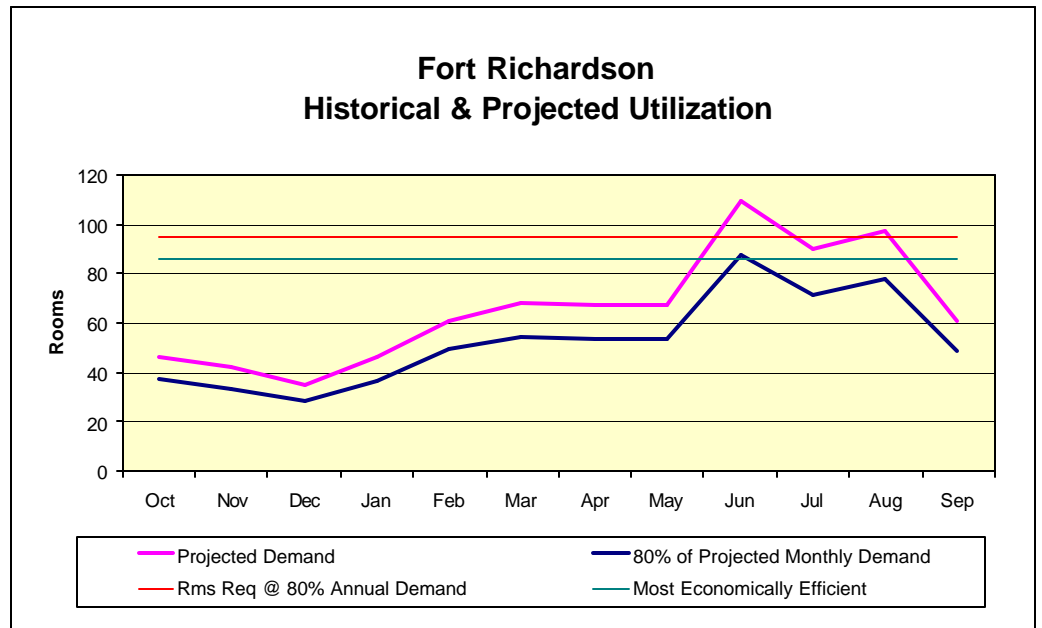
Data show demand was very consistent. Based on this, we recommend the average demand for the last three years, once normalized, as the best indicator of future demand.

The normalization process eliminated monthly demand peaks or valleys where official demand was 20% greater or 20% less than average demand for 2000 through 2002. Variances greater or less than 20% of the average are atypical and unlikely to recur. For Fort Richardson, normalization increased demand by 46 rooms in January, reduced demand by 14 rooms in December and by 6 rooms in February.

The Core Lodging Requirement objective is to provide sufficient lodging to meet 80% of the official demand. Using this criterion, the total number of rooms required on an annualized basis is 95, generating occupancy of 81%. Fort Richardson has a very predictable occupancy on a month by month and yearly basis. Even though demand was highly seasonal, variances were consistent.

Another method to determine the number of rooms to be provided at the installation applies the "Most Economically Efficient" criterion. This measure compares the cost of having a vacant room to the incremental cost of lodging personnel off post. When the costs of these scenarios are at equilibrium, the most cost efficient number of rooms will be provided from an operating cost perspective. The number of rooms required to achieve this equilibrium for Fort Richardson is 86 rooms. With a room inventory of 86 rooms, the expected occupancy is 83% but only 72% of the official demand is met.

The chart below compares pertinent potential alternatives to room inventory to the projected demand.

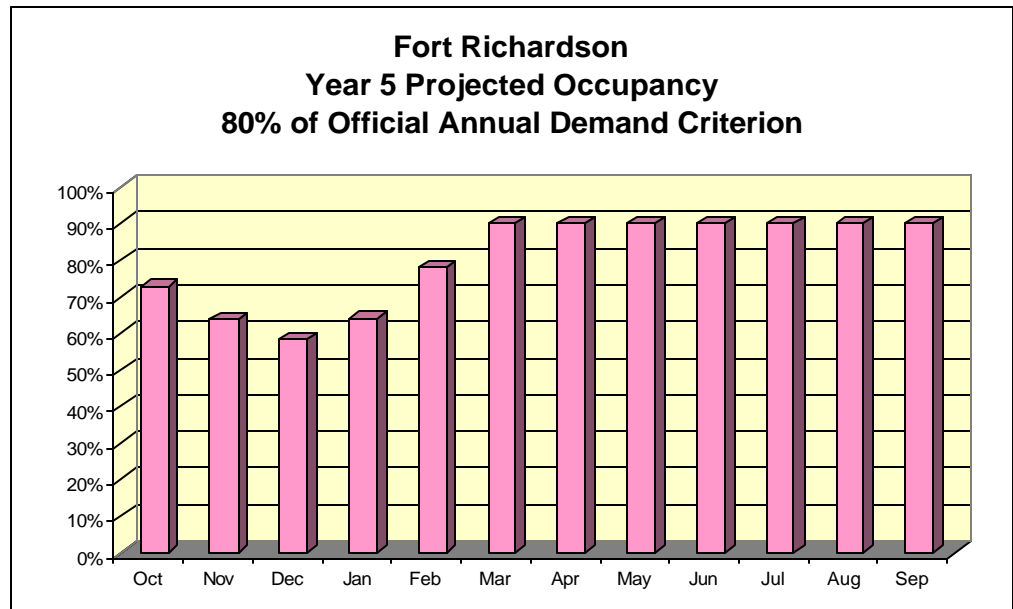


Source: Fort Richardson Lodging Administration and 3/DI

Due to the seasonality constraints in the summer Private Market and the lack of available supply at EAFB, we recommend the results of the 80% of Official Demand criterion, which best allows the installation to manage its seasonal demand cycle.

Fort Richardson's projected FY08 Average Daily Rate is \$78.50. The referral list lodging operations charge an ADR of \$96.

The chart below presents the expected occupancy percentage on a monthly basis.



Source: 3/DI

Using the “80% of Official Annual Demand” criterion, the average occupancy is 81%, and 80% of the official demand is met. On a monthly basis, occupancy varies from a low of 59% in December to 90% from March through September.

Summary and Recommendation

- Fort Richardson’s population grew approximately 53% over the last five years. As noted in the ASIP report, population is leveling off and growth is not expected to continue in the next five years
- The local private sector lodging market is expanding and has the capacity to house any personnel not housed on post at reasonable rates in off-season, but rates can double during peak season
- Official demand was very consistent over the last five years
- CNAs equaled 13% of the total official demand the past three years
- The existing demand justifies providing a room inventory equal to 80% of official demand
- Providing a room inventory equal to “80%of Official Demand” will generate an annual occupancy rate of 81%.

Room Count and Mix Recommendation

- 95 rooms
- Proposed room mix:

- 36 standard guest rooms
- 21 extended-stay guest rooms offering a kitchenette
- 38 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette

Section 4 Facility Assessment and Plans

Each Lodging facility on-post is detailed in this section of the report. The outline of the detail is described below:

- **Summary of Existing Lodging Facility**
- **Significant Assumptions**, identifies criteria used for renovation / replacement cost models.
- **Cost Analysis**, summarizes recommendation based on cost.
- **Attributes**, describes number of rooms and configuration.
- **Condition Analysis and Recommendations** for each of the major systems of the building.
- **Major Functional Criteria Deficit**, describes any major Functional inadequacy based on Army standards.
- **Condition Assessment / Renovation / Replacement Analysis**
 - **Condition Assessment**, summarizes building system deficiencies grouped by CSI with additional hard cost and soft cost.
 - **Renovation**, summarizes building system costs plus functional renovation costs grouped by CSI with additional hard cost and soft cost.
 - **Replacement**, summarizes replacement cost grouped by CSI with additional hard cost and soft cost.



*Building 53
Fourth Street*

Building 053

Building 53 was constructed in 1949. The 16,850 square foot facility contains 15 lodging units, 13 multi room units and 2 DVQs with a full kitchen. The building is functioning as 13 standard stay rooms and 2 family suites for high ranking visitors.

Significant Assumptions

The replacement and renovation cost models are based on 10 standard stay rooms and 10 extended stay rooms.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule.

All costs are adjusted by the Area Cost Factor of 168% for Ft Richardson.

Cost Analysis

Renovation Cost	\$2,436,660.00
Replacement Cost	\$3,116,325.00
Renovation to Replacement Cost Ratio	78.19%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 53 is not recommended.

Attributes

01.Number of Units Constructed	40
02.Number of Units Used	15
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	13
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	2
10.Operating as Standard Room	13
11.Operating as Extended Stay	0
12.Operating as Family Suite	2
13.Renovated to Standard	10
14.Renovated to Extended Stay	10
15.Renovated to Family Suite	0
16.Delta renovation	5

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms and a dinette set in the kitchen. They are in fair condition. The soft goods consist of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. They are in fair condition.
- Recommendation: Replace all hard and soft goods in guest rooms.

Foundations

Standard Foundations

- Analysis: No clear failures can be seen from the perimeter. The foundation seems to be in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking for the second floor. The superstructure is in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are metal lap siding over 1x6 diagonal sheathing. The siding is in fair condition, but the sheathing does not supply proper shear resistance in this earthquake prone area.
- Recommendation: Replace the siding and sheathing.

Exterior Windows

- Analysis: The windows are insulated aluminum framed units that are in good condition.
- Recommendation: No corrective action required.

Exterior Doors

- Analysis: The exterior doors are steel in steel frames and are in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roofing system was modified from a flat roofing system to a pitched roof in 1985. The roof was resingled in 1999. It is in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The partitions are drywall on wood studs and is in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The interior doors are wood in a wood frame. They are in fair condition.
- Recommendation: Replace the interior doors.

Fittings

- Analysis: There are no toilet partitions.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are wood framed, covered with carpet and have wood handrails. They are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Most of the interior walls are painted drywall in fair condition.
- Recommendation: Repaint the interior partitions.

Floor Finishes

- Analysis: Floor finishes include sheet vinyl in the guest bathrooms with carpet in the guest rooms and common areas.
- Recommendation: Replace carpet and sheet vinyl.

Ceiling Finishes

- Analysis: Ceilings are painted drywall in fair condition
- Recommendation: Repaint the ceilings.

Plumbing

Plumbing Fixtures

- Analysis: Plumbing fixtures are in fair condition.
- Recommendation: No changes necessary.

Domestic Water Distribution

- Analysis: The copper piping system is original and is showing signs of failure.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Heating is provided by new gas-fired boilers. The heating piping is original and is damaged. The heating control valves are failing and unable to control temperature in rooms. The building does not have a cooling system.
- Recommendation: Replace the heating piping and control valves.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.
- Recommendation: No action required.

Electrical

Electrical Service/Distribution

- Analysis: Panelboards, receptacles, and wires are beyond their expected useful life.
- Recommendation: Upgrade the electrical system with new panels and branch circuits.

Communications and Security

- Analysis: The fire alarm system uses a dial up connection to contact the fire department and is not compatible with standard alarm system used at Fort Richardson.
- Recommendation: The fire alarm system needs to be upgraded to meet current code requirements.

Equipment

Other Equipment

- Analysis: There are full kitchens in 2 of the units. The kitchen appliances are a refrigerator, stove/ oven unit and a microwave. All appliances were in good condition.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Administrative functions are located in Building 602 and not included in this building. The central laundry facility is located in the basement of Building 57. There are small storage spaces located in the basement.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 600, and are not included in this building.

- **Standard Guest Room**

The bathroom finishes, fixtures and lighting are not to standards. The closet lacks sufficient hanging space. The Living/Bedroom areas lack sufficient electrical outlets.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
07 Thermal & Moisture Protection	7.55%	\$49,823.76
Metal Lap Siding: Beyond Useful Life		\$49,823.76
08 Doors & Windows	8.56%	\$56,504.45
Wood Door - Beyond Useful Life		\$56,504.45
09 Finishes	28.12%	\$185,540.18
Carpet: Beyond Useful Life		\$48,113.91
Interior ceilings: Paint Failing		\$10,602.87
Sheet Vinyl: Beyond Useful Life		\$4,226.14
Vinyl Wall Covering: Beyond expected useful life		\$122,597.26
13 Special Construction	3.65%	\$24,061.80
Fire Alarm System: Beyond Useful Life		\$24,061.80
15 Mechanical	17.56%	\$115,856.26
Heating piping: Beyond expected useful life		\$50,508.25
Pipe, domestic water: Damaged or failing		\$65,348.01
16 Electrical	23.19%	\$152,993.11
Branch Circuits: Beyond Expected Useful Life		\$88,814.50
Panelboard: Beyond expected useful life		\$64,178.61
19 FF&E	11.37%	\$75,000.00
Hard and soft goods: Beyond expected useful life		\$75,000.00
Total Raw Cost	100.00%	\$659,780.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,628.79
Force Protection	9.00%	\$65,644.81
General Conditions	10.00%	\$65,978.00
Total Additional Hard Cost		\$135,251.60

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$79,503.16
SIOH Conus	6.50%	\$56,844.76
Design	10.00%	\$79,503.16
08 MYr Inflation Fct	9.93%	\$100,380.65
Total Soft Cost		\$316,231.73
Total Project		\$1,111,263.33

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	0.85%	\$12,348.00
Stair Construction		\$12,348.00
04 Masonry	3.44%	\$49,823.76
Exterior Walls		\$49,823.76
07 Thermal & Moisture Protection	1.22%	\$17,702.09
Roof Construction		\$17,702.09
08 Doors & Windows	2.36%	\$34,080.48
Interior Doors		\$34,080.48
09 Finishes	23.31%	\$337,204.02
Ceiling Finishes		\$61,598.88
Floor Finishes		\$102,434.24
Partitions		\$64,446.68
Wall Finishes		\$108,724.22
11 Equipment	4.65%	\$67,200.00
Other Equipment		\$67,200.00
13 Special Construction	11.17%	\$161,564.76
Communications & Security		\$72,730.98
Sprinklers		\$88,833.78
15 Mechanical	31.25%	\$452,067.84
Cooling Generating Systems		\$313,467.84
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$98,280.00
16 Electrical	14.84%	\$214,704.00
Electrical Service & Distribution		\$214,704.00
19 FF&E	6.91%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$1,446,694.96

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$7,956.82
Force Protection	9.00%	\$143,938.91
General Conditions	10.00%	\$144,669.50
Total Additional Hard Cost		\$296,565.23

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$174,326.02
SIOH Conus	6.50%	\$124,643.10
Design	10.00%	\$174,326.02
08 MYr Inflation Fct	9.93%	\$220,103.94
Total Soft Cost		\$693,399.09

Total Project Cost for Renovation	\$2,436,659.27
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Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.76%	\$58,164.33
Site Earthwork		\$58,164.33
03 Concrete	15.89%	\$334,477.33
Floor Construction		\$193,164.13
Slab on Grade		\$42,991.20
Stair Construction		\$12,348.00
Standard Foundations		\$85,974.00
04 Masonry	6.45%	\$135,681.19
Exterior Walls		\$135,681.19
07 Thermal & Moisture Protection	7.25%	\$152,543.97
Roof Construction		\$46,040.10
Roof Coverings		\$106,503.87
08 Doors & Windows	10.20%	\$214,648.56
Exterior Doors		\$16,506.00
Exterior Windows		\$161,280.00
Interior Doors		\$36,862.56
09 Finishes	13.24%	\$278,593.39
Ceiling Finishes		\$46,157.83
Floor Finishes		\$103,699.21
Partitions		\$73,715.00
Wall Finishes		\$55,021.34
10 Specialties	0.12%	\$2,533.44
Fittings		\$2,533.44
11 Equipment	1.60%	\$33,600.00
Other Equipment		\$33,600.00
13 Special Construction	4.92%	\$103,512.70
Communications & Security		\$46,597.91
Sprinklers		\$56,914.79
15 Mechanical	25.98%	\$546,915.26
Cooling Generating Systems		\$200,835.26
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$305,760.00
16 Electrical	6.85%	\$144,228.00
Electrical Service & Distribution		\$144,228.00
19 FF&E	4.75%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$2,104,898.17

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$11,576.94
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$210,489.82

Total Additional Hard Cost	\$222,066.76
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Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$116,348.25
SIOH Conus	6.50%	\$158,815.36
Design	10.00%	\$232,696.49
08 MYr Inflation Fct	9.93%	\$281,498.12
Total Soft Cost		\$789,358.22
Total Project Cost for Replacement		\$3,116,323.14

INSERT BUILDING 53 FLOOR PLANS HERE



*Building 55
Chilkoot St.*

Building 055

Building 55 was constructed in 1951. The 15,976 square foot facility contains 18 lodging units, 17 multi room units and 1 DVQ with a full kitchen. The building is functioning as 17 standard rooms and 1 family suite for high ranking visitors.

Significant Assumptions

The replacement and renovation cost models are based on 10 standard rooms and 10 extended stay units.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule.

All costs are adjusted by the Area Cost Factor of 168% for Ft Richardson.

Cost Analysis

Renovation Cost	\$2,436,660.00
Replacement Cost	\$3,116,325.00
Renovation to Replacement Cost Ratio	78.19%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 55 is not recommended.

Attributes

01.Number of Units Constructed	40
02.Number of Units Used	18
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	18
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	17
11.Operating as Extended Stay	0
12.Operating as Family Suite	1
13.Renovated to Standard	10
14.Renovated to Extended Stay	10
15.Renovated to Family Suite	0
16.Delta renovation	2

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms and a dinette set in the kitchen. All are in fair condition. Soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in fair condition.
- Recommendation: Replace all hard and soft goods in guest rooms.

Foundations

Standard Foundations

- Analysis: No clear failures can be seen from perimeter. Foundation seems to be functioning appropriately.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking for the second floor. The superstructure is in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are metal lap siding over 1x6 diagonal sheathing. The siding is in fair condition, but the sheathing does not supply proper shear resistance in this earthquake prone area.
- Recommendation: Replace siding and sheathing.

Exterior Windows

- Analysis: The windows are aluminum framed, insulated units in fair condition
- Recommendation: Replace the windows.

Exterior Doors

- Analysis: The exterior doors are steel in steel frames in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roofing system was modified from a flat roofing system to a pitched roof in 1985.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The partitions are drywall on wood studs in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The interior doors are wood in a wood frame. Most are beyond their useful lives.
- Recommendation: Replace interior doors in standard units.

Fittings

- Analysis: There are no toilet partitions in this building
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are wood framed, covered with carpet and have wood handrails. The stairs are too narrow to comply with current codes.
- Recommendation: No corrective action required, however, stair width should be increased during any major remodel

Interior Finishes

Wall Finishes

- Analysis: Most of the interior walls are painted drywall in fair condition.
- Recommendation: Repaint the interior partitions.

Floor Finishes

- Analysis: Floor finishes include sheet vinyl in the guest bathrooms with carpet in the guest rooms and common areas.
- Recommendation: Replace carpet and sheet vinyl.

Ceiling Finishes

- Analysis: Ceilings are painted drywall in fair condition
- Recommendation: Repaint the ceilings.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory, a water closet and a built in place shower. Ventilation is a constant volume induced draft system. The plumbing fixtures are in fair condition, but do not meet the standard for low volume water closets and do not have vanities.

- Recommendation: Replace plumbing fixtures when replacing domestic water distribution system.

Domestic Water Distribution

- Analysis: Hot water is produced from a gas fired water heater located in the basement. Piping is in poor condition.

- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Heating is provided by new gas-fired boilers. The heating piping is original and is damaged. The heating control valves are failing and unable to control temperature in rooms. The building does not have a cooling system.

- Recommendation: Replace the heating piping and control valves.

Fire Protection

Sprinklers

- Analysis: No sprinkler system is installed.

- Recommendation: No action required.

Electrical

Electrical Service/Distribution

- Analysis: Panelboards, receptacles, and wires are original and need to be upgraded.

- Recommendation: Install new panels and replace branch circuits.

Communications and Security

- Analysis: The fire alarm system uses a dial up connection to contact the fire department and is not compatible with standard alarm system used at Fort Richardson.

- Recommendation: The fire alarm system needs to be upgraded to meet current code requirements.

Equipment

Other Equipment

- Analysis: There are no back of the house function at this location and there is no kitchen equipment.

- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Administrative functions are located in Building 602 and not included in this building. The central laundry facility is located in the basement of Building 57. There are small storage spaces located in the basement.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 600, and are not included in this building.

- **Standard Guest Room**

The bathroom finishes, fixtures and lighting are not to standards. The closet lacks sufficient hanging space. The Living/Bedroom areas lack sufficient electrical outlets.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
07 Thermal & Moisture Protection	6.72%	\$49,823.76
Metal Lap Siding: Beyond Useful Life		\$49,823.76
08 Doors & Windows	12.41%	\$92,047.94
Al. Windows - Beyond Useful Life		\$35,543.49
Wood Door - Beyond Useful Life		\$56,504.45
09 Finishes	25.02%	\$185,540.18
Carpet: Beyond Useful Life		\$48,113.91
Interior ceilings: Paint Failing		\$10,602.87
Sheet Vinyl: Beyond Useful Life		\$4,226.14
Vinyl Wall Covering: Beyond expected useful life		\$122,597.26
13 Special Construction	3.08%	\$22,813.73
Fire Alarm System: Beyond Useful Life		\$22,813.73
15 Mechanical	21.10%	\$156,515.66
Heating piping: Beyond expected useful life		\$47,878.61
Lavatory: Damaged or failing		\$13,388.35
Pipe, domestic water: Damaged or failing		\$61,954.46
Water closet: Damaged or failing		\$33,294.24
16 Electrical	19.55%	\$144,968.68
Branch Circuits: Beyond Expected Useful Life		\$84,206.54
Panelboard: Beyond expected useful life		\$60,762.14
19 FF&E	12.13%	\$90,000.00
Hard and soft goods: Beyond expected useful life		\$90,000.00
Total Raw Cost	100.00%	\$741,710.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,079.41
Force Protection	9.00%	\$73,796.44
General Conditions	10.00%	\$74,171.00
Total Additional Hard Cost		\$152,046.84

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$89,375.68
SIOH Conus	6.50%	\$63,903.61
Design	10.00%	\$89,375.68
08 MYr Inflation Fct	9.93%	\$112,845.69
Total Soft Cost		\$355,500.68
Total Project		\$1,249,257.52

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	0.85%	\$12,348.00
Stair Construction		\$12,348.00
04 Masonry	3.44%	\$49,823.76
Exterior Walls		\$49,823.76
07 Thermal & Moisture Protection	1.22%	\$17,702.09
Roof Construction		\$17,702.09
08 Doors & Windows	2.36%	\$34,080.48
Interior Doors		\$34,080.48
09 Finishes	23.31%	\$337,204.02
Ceiling Finishes		\$61,598.88
Floor Finishes		\$102,434.24
Partitions		\$64,446.68
Wall Finishes		\$108,724.22
11 Equipment	4.65%	\$67,200.00
Other Equipment		\$67,200.00
13 Special Construction	11.17%	\$161,564.76
Communications & Security		\$72,730.98
Sprinklers		\$88,833.78
15 Mechanical	31.25%	\$452,067.84
Cooling Generating Systems		\$313,467.84
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$98,280.00
16 Electrical	14.84%	\$214,704.00
Electrical Service & Distribution		\$214,704.00
19 FF&E	6.91%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$1,446,694.96

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$7,956.82
Force Protection	9.00%	\$143,938.91
General Conditions	10.00%	\$144,669.50
Total Additional Hard Cost		\$296,565.23

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$174,326.02
SIOH Conus	6.50%	\$124,643.10
Design	10.00%	\$174,326.02
08 MYr Inflation Fct	9.93%	\$220,103.94
Total Soft Cost		\$693,399.09

Total Project Cost for Renovation	\$2,436,659.27
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Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.76%	\$58,164.33
Site Earthwork		\$58,164.33
03 Concrete	15.89%	\$334,477.33
Floor Construction		\$193,164.13
Slab on Grade		\$42,991.20
Stair Construction		\$12,348.00
Standard Foundations		\$85,974.00
04 Masonry	6.45%	\$135,681.19
Exterior Walls		\$135,681.19
07 Thermal & Moisture Protection	7.25%	\$152,543.97
Roof Construction		\$46,040.10
Roof Coverings		\$106,503.87
08 Doors & Windows	10.20%	\$214,648.56
Exterior Doors		\$16,506.00
Exterior Windows		\$161,280.00
Interior Doors		\$36,862.56
09 Finishes	13.24%	\$278,593.39
Ceiling Finishes		\$46,157.83
Floor Finishes		\$103,699.21
Partitions		\$73,715.00
Wall Finishes		\$55,021.34
10 Specialties	0.12%	\$2,533.44
Fittings		\$2,533.44
11 Equipment	1.60%	\$33,600.00
Other Equipment		\$33,600.00
13 Special Construction	4.92%	\$103,512.70
Communications & Security		\$46,597.91
Sprinklers		\$56,914.79
15 Mechanical	25.98%	\$546,915.26
Cooling Generating Systems		\$200,835.26
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$305,760.00
16 Electrical	6.85%	\$144,228.00
Electrical Service & Distribution		\$144,228.00
19 FF&E	4.75%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$2,104,898.17

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$11,576.94
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$210,489.82

Total Additional Hard Cost	\$222,066.76
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Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$116,348.25
SIOH Conus	6.50%	\$158,815.36
Design	10.00%	\$232,696.49
08 MYr Inflation Fct	9.93%	\$281,498.12
Total Soft Cost		\$789,358.22
Total Project Cost for Replacement		\$3,116,323.14

INSERT BUILDING 55 FLOOR PLANS HERE



Building 57
Chilkoot St

Building 057

Building 57 was constructed in 1952. The 15,976 square foot facility contains 12 lodging units, 7 multi room units and 5 multi occupancy. The building is functioning as 12 family suites.

Significant Assumptions

The replacement and renovation cost models are based on 10 standard rooms and 10 extended stay units.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule.

All costs are adjusted by the Area Cost Factor of 168% for Ft Richardson.

Cost Analysis

Renovation Cost	\$2,708,300.00
Replacement Cost	\$3,116,325.00
Renovation to Replacement Cost Ratio	86.91%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 57 is not recommended.

Attributes

01.Number of Units Constructed	40
02.Number of Units Used	12
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	12
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	12
13.Renovated to Standard	10
14.Renovated to Extended Stay	10
15.Renovated to Family Suite	0
16.Delta renovation	8

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms and a dinette set in the kitchen. All are in fair condition. Soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in fair condition.
- Recommendation: Replace all hard and soft goods in guest rooms.

Foundations

Standard Foundations

- Analysis: No clear failures can be seen from perimeter. Foundation seems to be functioning appropriately.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking for the second floor. The superstructure is in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are metal lap siding over 1x6 diagonal sheathing. The siding is in fair condition, but the sheathing does not supply proper shear resistance in this earthquake prone area.
- Recommendation: Replace siding and sheathing.

Exterior Windows

- Analysis: The windows are wood framed, insulated units in fair condition
- Recommendation: Replace the windows.

Exterior Doors

- Analysis: The exterior doors are steel in steel frames in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roofing system was modified from a flat roofing system to a pitched roof in 1985.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The partitions are drywall on wood studs in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The interior doors are wood in a wood frame. Most are beyond their useful lives.
- Recommendation: Replace interior doors in standard units.

Fittings

- Analysis: There are no toilet partitions in this building
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are wood framed, covered with carpet and have wood handrails. The stairs are too narrow to comply with current codes.
- Recommendation: No corrective action required, however, stair width should be increased during any major remodel

Interior Finishes

Wall Finishes

- Analysis: Most of the interior walls are painted drywall in fair condition.
- Recommendation: Repaint the interior partitions.

Floor Finishes

- Analysis: Floor finishes include sheet vinyl in the guest bathrooms with carpet in the guest rooms and common areas.
- Recommendation: Replace carpet and sheet vinyl.

Ceiling Finishes

- Analysis: Ceilings are painted drywall in fair condition
- Recommendation: Repaint the ceilings.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory, a water closet and a built in place shower. Ventilation is a constant volume induced draft system. The plumbing fixtures are in fair condition, but do not meet the standard for low volume water closets and do not have vanities.
- Recommendation: Replace plumbing fixtures when replacing domestic water distribution system.

Domestic Water Distribution

- Analysis: Hot water is produced from a gas fired water heater located in each apartment. The piping is in fair condition.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Heating is provided by new gas-fired boilers. The heating piping is original and is damaged. The heating control valves are failing and unable to control temperature in rooms. The building does not have a cooling system.
- Recommendation: Replace the heating piping and control valves.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Panelboards, receptacles, and wires are beyond their expected useful life.
- Recommendation: Upgrade the electrical system with new panels and branch circuits.

Communications and Security

- Analysis: The fire alarm system uses a dial up connection to contact the fire department and is not compatible with standard alarm system used at Fort Richardson.
- Recommendation: The fire alarm system needs to be upgraded to meet current code requirements.

Equipment

Other Equipment

- Analysis: There are no kitchens located in this building
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.

- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Administrative functions are located in Building 602 and not included in this building. The central laundry facility is located in the basement of Building 57. There are small storage spaces located in the basement.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 600, and are not included in this building.

- **Standard Guest Room**

The bathroom finishes, fixtures and lighting are not to standards. The closet lacks sufficient hanging space. The Living/Bedroom areas lack sufficient electrical outlets.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
07 Thermal & Moisture Protection	7.00%	\$49,823.76
Metal Lap Siding: Beyond Useful Life		\$49,823.76
08 Doors & Windows	12.93%	\$92,047.94
Al. Windows - Beyond Useful Life		\$35,543.49
Wood Door - Beyond Useful Life		\$56,504.45
09 Finishes	26.07%	\$185,540.18
Carpet: Beyond Useful Life		\$48,113.91
Interior ceilings: Paint Failing		\$10,602.87
Sheet Vinyl: Beyond Useful Life		\$4,226.14
Vinyl Wall Covering: Beyond expected useful life		\$122,597.26
13 Special Construction	3.21%	\$22,813.73
Fire Alarm System: Beyond Useful Life		\$22,813.73
15 Mechanical	21.99%	\$156,515.66
Heating piping: Beyond expected useful life		\$47,878.61
Lavatory: Damaged or failing		\$13,388.35
Pipe, domestic water: Damaged or failing		\$61,954.46
Water closet: Damaged or failing		\$33,294.24
16 Electrical	20.37%	\$144,968.68
Branch Circuits: Beyond Expected Useful Life		\$84,206.54
Panelboard: Beyond expected useful life		\$60,762.14
19 FF&E	8.43%	\$60,000.00
Hard and soft goods: Beyond expected useful life		\$60,000.00
Total Raw Cost	100.00%	\$711,710.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,914.41
Force Protection	9.00%	\$70,811.59
General Conditions	10.00%	\$71,171.00
Total Additional Hard Cost		\$145,896.99

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$85,760.70
SIOH Conus	6.50%	\$61,318.90
Design	10.00%	\$85,760.70
08 MYr Inflation Fct	9.93%	\$108,281.42
Total Soft Cost		\$341,121.71
Total Project		\$1,198,728.71

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	0.77%	\$12,348.00
Stair Construction		\$12,348.00
04 Masonry	3.10%	\$49,823.76
Exterior Walls		\$49,823.76
07 Thermal & Moisture Protection	1.10%	\$17,702.09
Roof Construction		\$17,702.09
08 Doors & Windows	12.15%	\$195,360.48
Exterior Windows		\$161,280.00
Interior Doors		\$34,080.48
09 Finishes	20.97%	\$337,204.02
Ceiling Finishes		\$61,598.88
Floor Finishes		\$102,434.24
Partitions		\$64,446.68
Wall Finishes		\$108,724.22
11 Equipment	4.18%	\$67,200.00
Other Equipment		\$67,200.00
13 Special Construction	10.05%	\$161,564.76
Communications & Security		\$72,730.98
Sprinklers		\$88,833.78
15 Mechanical	28.11%	\$452,067.84
Cooling Generating Systems		\$313,467.84
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$98,280.00
16 Electrical	13.35%	\$214,704.00
Electrical Service & Distribution		\$214,704.00
19 FF&E	6.22%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$1,607,974.96

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$8,843.86
Force Protection	9.00%	\$159,985.47
General Conditions	10.00%	\$160,797.50
Total Additional Hard Cost		\$329,626.83

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$193,760.18
SIOH Conus	6.50%	\$138,538.53
Design	10.00%	\$193,760.18
08 MYr Inflation Fct	9.93%	\$244,641.50

Total Soft Cost	\$770,700.39
Total Project Cost for Renovation	\$2,708,302.17

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.76%	\$58,164.33
Site Earthwork		\$58,164.33
03 Concrete	15.89%	\$334,477.33
Floor Construction		\$193,164.13
Slab on Grade		\$42,991.20
Stair Construction		\$12,348.00
Standard Foundations		\$85,974.00
04 Masonry	6.45%	\$135,681.19
Exterior Walls		\$135,681.19
07 Thermal & Moisture Protection	7.25%	\$152,543.97
Roof Construction		\$46,040.10
Roof Coverings		\$106,503.87
08 Doors & Windows	10.20%	\$214,648.56
Exterior Doors		\$16,506.00
Exterior Windows		\$161,280.00
Interior Doors		\$36,862.56
09 Finishes	13.24%	\$278,593.39
Ceiling Finishes		\$46,157.83
Floor Finishes		\$103,699.21
Partitions		\$73,715.00
Wall Finishes		\$55,021.34
10 Specialties	0.12%	\$2,533.44
Fittings		\$2,533.44
11 Equipment	1.60%	\$33,600.00
Other Equipment		\$33,600.00
13 Special Construction	4.92%	\$103,512.70
Communications & Security		\$46,597.91
Sprinklers		\$56,914.79
15 Mechanical	25.98%	\$546,915.26
Cooling Generating Systems		\$200,835.26
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$305,760.00
16 Electrical	6.85%	\$144,228.00
Electrical Service & Distribution		\$144,228.00
19 FF&E	4.75%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$2,104,898.17

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$11,576.94
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$210,489.82

Total Additional Hard Cost	\$222,066.76
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Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$116,348.25
SIOH Conus	6.50%	\$158,815.36
Design	10.00%	\$232,696.49
08 MYr Inflation Fct	9.93%	\$281,498.12
Total Soft Cost		\$789,358.22
Total Project Cost for Replacement		\$3,116,323.14

INSERT BUILDING 57 FLOOR PLANS HERE



*Building 58
Chilkoot St*

Building 058

Building 58 was constructed in 1952. The 15,976 square foot facility contains 11 lodging units, 3 multi room units and 8 multi occupancy. The building is functioning as 11 family suites.

Significant Assumptions

The replacement and renovation cost models are based on 10 standard rooms and 10 extended stay units.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule.

All costs are adjusted by the Area Cost Factor of 168% for Ft Richardson.

Cost Analysis

Renovation Cost	\$2,708,300.00
Replacement Cost	\$3,116,325.00
Renovation to Replacement Cost Ratio	86.91%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 58 is not recommended.

Attributes

01.Number of Units Constructed	40
02.Number of Units Used	11
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	11
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	11
13.Renovated to Standard	10
14.Renovated to Extended Stay	10
15.Renovated to Family Suite	0
16.Delta renovation	9

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms and a dinette set in the kitchen. All are in fair condition. Soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in fair condition.
- Recommendation: Replace all hard and soft goods in guest rooms.

Foundations

Standard Foundations

- Analysis: No clear failures can be seen from perimeter. Foundation seems to be functioning appropriately.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking for the second floor. The superstructure is in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are metal lap siding over 1x6 diagonal sheathing. The siding is in fair condition, but the sheathing does not supply proper shear resistance in this earthquake prone area.
- Recommendation: Replace siding and sheathing.

Exterior Windows

- Analysis: The windows are wood, insulated units in fair condition
- Recommendation: Replace the windows.

Exterior Doors

- Analysis: The exterior doors are steel in steel frames in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roofing system was modified from a flat roofing system to a pitched roof in 1985.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The partitions are drywall on wood studs in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The interior doors are wood in a wood frame. Most are beyond their useful lives.
- Recommendation: Replace interior doors in standard units.

Fittings

- Analysis: There are no toilet partitions in this building
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are wood framed, covered with carpet and have wood handrails. The stairs are too narrow to comply with current codes.
- Recommendation: No corrective action required, however, stair width should be increased during any major remodel

Interior Finishes

Wall Finishes

- Analysis: Most of the interior walls are painted drywall in fair condition.
- Recommendation: Repaint the interior partitions.

Floor Finishes

- Analysis: Floor finishes include sheet vinyl in the guest bathrooms with carpet in the guest rooms and common areas.
- Recommendation: Replace carpet and sheet vinyl.

Ceiling Finishes

- Analysis: Ceilings are painted drywall in fair condition
- Recommendation: Repaint the ceilings.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory, a water closet and a built in place shower. Ventilation is a constant volume induced draft system. The plumbing fixtures are in fair condition, but do not meet the standard for low volume water closets and do not have vanities.
- Recommendation: Replace plumbing fixtures when replacing domestic water distribution system.

Domestic Water Distribution

- Analysis: Hot water is produced from two gas fired water heater located in an adjacent building. The piping is in fair condition.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Heating is provided by new gas-fired boilers. The heating piping is original and is damaged. The heating control valves are failing and unable to control temperature in rooms. The building does not have a cooling system.
- Recommendation: Replace the heating piping and control valves.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Panelboards, receptacles, and wires are beyond their expected useful life.
- Recommendation: Upgrade the electrical system with new panels and branch circuits.

Communications and Security

- Analysis: The fire alarm system uses a dial up connection to contact the fire department and is not compatible with standard alarm system used at Fort Richardson.
- Recommendation: The fire alarm system needs to be upgraded to meet current code requirements.

Equipment

Other Equipment

- Analysis: There are no kitchens located in this building
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.

- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Administrative functions are located in Building 602 and not included in this building. The central laundry facility is located in the basement of Building 57. There are small storage spaces located in the basement.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 600, and are not included in this building.

- **Standard Guest Room**

The bathroom finishes, fixtures and lighting are not to standards. The closet lacks sufficient hanging space. The Living/Bedroom areas lack sufficient electrical outlets.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
07 Thermal & Moisture Protection	7.05%	\$49,823.76
Metal Lap Siding: Beyond Useful Life		\$49,823.76
08 Doors & Windows	13.02%	\$92,047.94
Al. Windows - Beyond Useful Life		\$35,543.49
Wood Door - Beyond Useful Life		\$56,504.45
09 Finishes	26.25%	\$185,540.18
Carpet: Beyond Useful Life		\$48,113.91
Interior ceilings: Paint Failing		\$10,602.87
Sheet Vinyl: Beyond Useful Life		\$4,226.14
Vinyl Wall Covering: Beyond expected useful life		\$122,597.26
13 Special Construction	3.23%	\$22,813.73
Fire Alarm System: Beyond Useful Life		\$22,813.73
15 Mechanical	22.15%	\$156,515.66
Heating piping: Beyond expected useful life		\$47,878.61
Lavatory: Damaged or failing		\$13,388.35
Pipe, domestic water: Damaged or failing		\$61,954.46
Water closet: Damaged or failing		\$33,294.24
16 Electrical	20.51%	\$144,968.68
Branch Circuits: Beyond Expected Useful Life		\$84,206.54
Panelboard: Beyond expected useful life		\$60,762.14
19 FF&E	7.78%	\$55,000.00
Hard and soft goods: Beyond expected useful life		\$55,000.00
Total Raw Cost	100.00%	\$706,710.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,886.91
Force Protection	9.00%	\$70,314.11
General Conditions	10.00%	\$70,671.00
Total Additional Hard Cost		\$144,872.02

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$85,158.20
SIOH Conus	6.50%	\$60,888.11
Design	10.00%	\$85,158.20
08 MYr Inflation Fct	9.93%	\$107,520.70
Total Soft Cost		\$338,725.22
Total Project		\$1,190,307.24

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	0.77%	\$12,348.00
Stair Construction		\$12,348.00
04 Masonry	3.10%	\$49,823.76
Exterior Walls		\$49,823.76
07 Thermal & Moisture Protection	1.10%	\$17,702.09
Roof Construction		\$17,702.09
08 Doors & Windows	12.15%	\$195,360.48
Exterior Windows		\$161,280.00
Interior Doors		\$34,080.48
09 Finishes	20.97%	\$337,204.02
Ceiling Finishes		\$61,598.88
Floor Finishes		\$102,434.24
Partitions		\$64,446.68
Wall Finishes		\$108,724.22
11 Equipment	4.18%	\$67,200.00
Other Equipment		\$67,200.00
13 Special Construction	10.05%	\$161,564.76
Communications & Security		\$72,730.98
Sprinklers		\$88,833.78
15 Mechanical	28.11%	\$452,067.84
Cooling Generating Systems		\$313,467.84
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$98,280.00
16 Electrical	13.35%	\$214,704.00
Electrical Service & Distribution		\$214,704.00
19 FF&E	6.22%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$1,607,974.96

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$8,843.86
Force Protection	9.00%	\$159,985.47
General Conditions	10.00%	\$160,797.50
Total Additional Hard Cost		\$329,626.83

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$193,760.18
SIOH Conus	6.50%	\$138,538.53
Design	10.00%	\$193,760.18
08 MYr Inflation Fct	9.93%	\$244,641.50

Total Soft Cost	\$770,700.39
Total Project Cost for Renovation	\$2,708,302.17

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.76%	\$58,164.33
Site Earthwork		\$58,164.33
03 Concrete	15.89%	\$334,477.33
Floor Construction		\$193,164.13
Slab on Grade		\$42,991.20
Stair Construction		\$12,348.00
Standard Foundations		\$85,974.00
04 Masonry	6.45%	\$135,681.19
Exterior Walls		\$135,681.19
07 Thermal & Moisture Protection	7.25%	\$152,543.97
Roof Construction		\$46,040.10
Roof Coverings		\$106,503.87
08 Doors & Windows	10.20%	\$214,648.56
Exterior Doors		\$16,506.00
Exterior Windows		\$161,280.00
Interior Doors		\$36,862.56
09 Finishes	13.24%	\$278,593.39
Ceiling Finishes		\$46,157.83
Floor Finishes		\$103,699.21
Partitions		\$73,715.00
Wall Finishes		\$55,021.34
10 Specialties	0.12%	\$2,533.44
Fittings		\$2,533.44
11 Equipment	1.60%	\$33,600.00
Other Equipment		\$33,600.00
13 Special Construction	4.92%	\$103,512.70
Communications & Security		\$46,597.91
Sprinklers		\$56,914.79
15 Mechanical	25.98%	\$546,915.26
Cooling Generating Systems		\$200,835.26
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$305,760.00
16 Electrical	6.85%	\$144,228.00
Electrical Service & Distribution		\$144,228.00
19 FF&E	4.75%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$2,104,898.17

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$11,576.94
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$210,489.82

Total Additional Hard Cost	\$222,066.76
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Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$116,348.25
SIOH Conus	6.50%	\$158,815.36
Design	10.00%	\$232,696.49
08 MYr Inflation Fct	9.93%	\$281,498.12
Total Soft Cost		\$789,358.22
Total Project Cost for Replacement		\$3,116,323.14

INSERT BUILDING 58 FLOOR PLANS HERE



Building 1107
Doe St.

Building 1107

Building 1107 was constructed in 1952 and remodeled in 1997. The 15,976 square foot facility contains 19 lodging units operating as extended stay suites.

Significant Assumptions

The replacement and renovation cost models are based on 10 standard rooms and 10 extended stay units.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule.

All costs are adjusted by the Area Cost Factor of 168% for Ft Richardson.

Cost Analysis

Renovation Cost	\$2,436,660.00
Replacement Cost	\$3,116,325.00
Renovation to Replacement Cost Ratio	78.19%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 1107 is not recommended.

Attributes

01.Number of Units Constructed	40
02.Number of Units Used	19
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	19
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	19
12.Operating as Family Suite	0
13.Renovated to Standard	10
14.Renovated to Extended Stay	10
15.Renovated to Family Suite	0
16.Delta renovation	1

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms and a dinette set in the kitchen. All are in fair condition. Soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in fair condition.
- Recommendation: Replace all hard and soft goods in guest rooms.

Foundations

Standard Foundations

- Analysis: No clear failures can be seen from perimeter. Foundation seems to be functioning appropriately.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking for the second floor. The superstructure is in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are metal lap siding over 1x6 diagonal sheathing. The siding is in fair condition, but the sheathing does not supply proper shear resistance in this earthquake prone area.
- Recommendation: Replace siding and sheathing.

Exterior Windows

- Analysis: The windows are aluminum framed, insulated units in good condition
- Recommendation: No corrective action required

Exterior Doors

- Analysis: The exterior doors are steel in steel frames in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roofing system was modified from a flat roofing system to a pitched roof in 1985.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The partitions are drywall on wood studs in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The interior doors are wood in a wood frame.
- Recommendation: No corrective action required.

Fittings

- Analysis: There are no toilet partitions in this building
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are wood framed, covered with carpet and have wood handrails. The stairs are too narrow to comply with current codes.
- Recommendation: No corrective action required, however, stair width should be increased during any major remodel

Interior Finishes

Wall Finishes

- Analysis: Most of the interior walls are painted drywall in fair condition.
- Recommendation: No corrective action required.

Floor Finishes

- Analysis: Floor finishes include sheet vinyl in the guest bathrooms with carpet in the guest rooms and common areas.
- Recommendation: No corrective action required.

Ceiling Finishes

- Analysis: Ceilings are painted drywall in fair condition
- Recommendation: No corrective action required

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower. Ventilation is a constant volume induced draft system. The plumbing fixtures were replaced in 1997 and are in good condition.
- Recommendation: No action required.

Domestic Water Distribution

- Analysis: Hot water is produced from a gas fired water heater located in the basement. The piping is in poor condition.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Heating is provided by new gas-fired boilers. The heating piping is original and is damaged. The heating control valves are failing and unable to control temperature in rooms. The building does not have a cooling system.
- Recommendation: Replace the heating piping and control valves.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Receptacles and wires are beyond their expected useful life.
- Recommendation: Upgrade the electrical system with new branch circuits.

Communications and Security

- Analysis: The fire alarm system was upgraded within the last 5 years and is in good condition. The fire panel emits a radio signal directly to the fire department.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: There are no kitchens in this building
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Administrative functions are located in Building 602 and not included in this building. The central laundry facility is located in the basement of Building 57. There are small storage spaces located in the basement.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 600, and are not included in this building.

- **Standard Guest Room**

The bathroom finishes, fixtures and lighting are not to standards. The closet lacks sufficient hanging space. The Living/Bedroom areas lack sufficient electrical outlets.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
07 Thermal & Moisture Protection	14.70%	\$49,823.76
Metal Lap Siding: Beyond Useful Life		\$49,823.76
15 Mechanical	32.41%	\$109,828.68
Heating piping: Beyond expected useful life		\$47,877.44
Pipe, domestic water: Beyond expected useful life		\$61,951.24
16 Electrical	24.85%	\$84,201.46
Branch Circuits: Beyond Expected Useful Life		\$84,201.46
19 FF&E	28.04%	\$95,000.00
Hard and soft goods: Beyond expected useful life		\$95,000.00
Total Raw Cost	100.00%	\$338,854.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,863.70
Force Protection	9.00%	\$33,714.28
General Conditions	10.00%	\$33,885.40
Total Additional Hard Cost		\$69,463.38

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$40,831.74
SIOH Conus	6.50%	\$29,194.69
Design	10.00%	\$40,831.74
08 MYr Inflation Fct	9.93%	\$51,554.13
Total Soft Cost		\$162,412.30
Total Project		\$570,729.67

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	0.85%	\$12,348.00
Stair Construction		\$12,348.00
04 Masonry	3.44%	\$49,823.76
Exterior Walls		\$49,823.76
07 Thermal & Moisture Protection	1.22%	\$17,702.09
Roof Construction		\$17,702.09
08 Doors & Windows	2.36%	\$34,080.48
Interior Doors		\$34,080.48
09 Finishes	23.31%	\$337,204.02
Ceiling Finishes		\$61,598.88
Floor Finishes		\$102,434.24
Partitions		\$64,446.68
Wall Finishes		\$108,724.22
11 Equipment	4.65%	\$67,200.00
Other Equipment		\$67,200.00
13 Special Construction	11.17%	\$161,564.76
Communications & Security		\$72,730.98
Sprinklers		\$88,833.78
15 Mechanical	31.25%	\$452,067.84
Cooling Generating Systems		\$313,467.84
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$98,280.00
16 Electrical	14.84%	\$214,704.00
Electrical Service & Distribution		\$214,704.00
19 FF&E	6.91%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$1,446,694.96

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$7,956.82
Force Protection	9.00%	\$143,938.91
General Conditions	10.00%	\$144,669.50
Total Additional Hard Cost		\$296,565.23

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$174,326.02
SIOH Conus	6.50%	\$124,643.10
Design	10.00%	\$174,326.02
08 MYr Inflation Fct	9.93%	\$220,103.94
Total Soft Cost		\$693,399.09

Total Project Cost for Renovation	\$2,436,659.27
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Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.76%	\$58,164.33
Site Earthwork		\$58,164.33
03 Concrete	15.89%	\$334,477.33
Floor Construction		\$193,164.13
Slab on Grade		\$42,991.20
Stair Construction		\$12,348.00
Standard Foundations		\$85,974.00
04 Masonry	6.45%	\$135,681.19
Exterior Walls		\$135,681.19
07 Thermal & Moisture Protection	7.25%	\$152,543.97
Roof Construction		\$46,040.10
Roof Coverings		\$106,503.87
08 Doors & Windows	10.20%	\$214,648.56
Exterior Doors		\$16,506.00
Exterior Windows		\$161,280.00
Interior Doors		\$36,862.56
09 Finishes	13.24%	\$278,593.39
Ceiling Finishes		\$46,157.83
Floor Finishes		\$103,699.21
Partitions		\$73,715.00
Wall Finishes		\$55,021.34
10 Specialties	0.12%	\$2,533.44
Fittings		\$2,533.44
11 Equipment	1.60%	\$33,600.00
Other Equipment		\$33,600.00
13 Special Construction	4.92%	\$103,512.70
Communications & Security		\$46,597.91
Sprinklers		\$56,914.79
15 Mechanical	25.98%	\$546,915.26
Cooling Generating Systems		\$200,835.26
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$305,760.00
16 Electrical	6.85%	\$144,228.00
Electrical Service & Distribution		\$144,228.00
19 FF&E	4.75%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$2,104,898.17

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$11,576.94
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$210,489.82

Total Additional Hard Cost	\$222,066.76
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Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$116,348.25
SIOH Conus	6.50%	\$158,815.36
Design	10.00%	\$232,696.49
08 MYr Inflation Fct	9.93%	\$281,498.12
Total Soft Cost		\$789,358.22
Total Project Cost for Replacement		\$3,116,323.14

INSERT BUILDING 1107 FLOOR PLANS HERE



*Building 1113
First St.*

Building 1113

Building 1113 was constructed in 1954. The 16,926 square foot facility contains 18 lodging units, 17 multi room units and 1 multi occupancy room. The building is functioning as 18 standard stay units.

Significant Assumptions

The replacement and renovation cost models are based on 10 standard rooms and 10 extended stay units.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule.

All costs are adjusted by the Area Cost Factor of 168% for Ft Richardson.

Cost Analysis

Renovation Cost	\$2,777,460.00
Replacement Cost	\$3,116,325.00
Renovation to Replacement Cost Ratio	89.13%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 1113 is not recommended.

Attributes

01.Number of Units Constructed	39
02.Number of Units Used	18
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	18
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	18
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	10
14.Renovated to Extended Stay	10
15.Renovated to Family Suite	0
16.Delta renovation	2

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms and a dinette set in the kitchen. All are in fair condition. Soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in fair condition.
- Recommendation: Replace all hard and soft goods in guest rooms.

Foundations

Standard Foundations

- Analysis: No clear failures can be seen from perimeter. Foundation seems to be functioning appropriately.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking for the second floor. The superstructure is in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are metal lap siding over 1x6 diagonal sheathing. The siding is in fair condition, but the sheathing does not supply proper shear resistance in this earthquake prone area.
- Recommendation: Replace siding and sheathing.

Exterior Windows

- Analysis: The windows are aluminum framed, insulated units in fair condition
- Recommendation: Replace the windows.

Exterior Doors

- Analysis: The exterior doors are steel in steel frames in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roofing system was modified from a flat roofing system to a pitched roof in 1985.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The partitions are drywall on wood studs in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The interior doors are wood in a wood frame. Most are beyond their useful lives.
- Recommendation: Replace interior doors in standard units.

Fittings

- Analysis: There are no toilet partitions in this building
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are wood framed, covered with carpet and have wood handrails. The stairs are too narrow to comply with current codes.
- Recommendation: No corrective action required, however, stair width should be increased during any major remodel

Interior Finishes

Wall Finishes

- Analysis: Most of the interior walls are painted drywall in fair condition.
- Recommendation: Repaint the interior partitions.

Floor Finishes

- Analysis: Floor finishes include sheet vinyl in the guest bathrooms with carpet in the guest rooms and common areas.
- Recommendation: Replace carpet and sheet vinyl.

Ceiling Finishes

- Analysis: Ceilings are painted drywall in fair condition
- Recommendation: Repaint the ceilings.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory, a water closet and a built in place shower. Ventilation is a constant volume induced draft system. The plumbing fixtures are in fair condition, but do not meet the standard for low volume water closets and do not have vanities.

- Recommendation: Replace plumbing fixtures when replacing domestic water distribution system.

Domestic Water Distribution

- Analysis: Hot water is produced from a gas fired water heater located in the basement. The piping is galvanized and is in poor condition.

- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Heating is provided by new gas-fired boilers. The heating piping is original and is damaged. The heating control valves are failing and unable to control temperature in rooms. The building does not have a cooling system.

- Recommendation: Replace the heating piping and control valves.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.

- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Panelboards, receptacles, and wires are beyond their expected useful life.

- Recommendation: Upgrade the electrical system with new panels and branch circuits.

Communications and Security

- Analysis: The fire alarm system was upgraded within the last 5 years and is in good condition. The fire panel emits a radio signal directly to the fire department.

- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: There are no back of the house function at this location and there is no kitchen equipment.

- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Administrative functions are located in Building 602 and not included in this building. The central laundry facility is located in the basement of Building 57. There are small storage spaces located in the basement.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 600, and are not included in this building.

- **Standard Guest Room**

The bathroom finishes, fixtures and lighting are not to standards. The closet lacks sufficient hanging space. The Living/Bedroom areas lack sufficient electrical outlets.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
07 Thermal & Moisture Protection	6.79%	\$49,823.76
Metal Lap Siding: Beyond Useful Life		\$49,823.76
08 Doors & Windows	12.54%	\$92,047.94
Al. Windows - Beyond Useful Life		\$35,543.49
Wood Door - Beyond Useful Life		\$56,504.45
09 Finishes	25.27%	\$185,540.18
Carpet: Beyond Useful Life		\$48,113.91
Interior ceilings: Paint Failing		\$10,602.87
Sheet Vinyl: Beyond Useful Life		\$4,226.14
Vinyl Wall Covering: Beyond expected useful life		\$122,597.26
15 Mechanical	22.21%	\$163,049.68
Heating piping: Beyond expected useful life		\$50,726.88
Lavatory: Damaged or failing		\$13,388.35
Pipe, domestic water: Damaged or failing		\$65,640.21
Water closet: Damaged or failing		\$33,294.24
16 Electrical	20.94%	\$153,726.31
Branch Circuits: Beyond Expected Useful Life		\$89,215.84
Panelboard: Beyond expected useful life		\$64,510.47
19 FF&E	12.26%	\$90,000.00
Hard and soft goods: Beyond expected useful life		\$90,000.00
Total Raw Cost	100.00%	\$734,188.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,038.03
Force Protection	9.00%	\$73,048.04
General Conditions	10.00%	\$73,418.80
Total Additional Hard Cost		\$150,504.87

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$88,469.29
SIOH Conus	6.50%	\$63,255.54
Design	10.00%	\$88,469.29
08 MYr Inflation Fct	9.93%	\$111,701.28
Total Soft Cost		\$351,895.39
Total Project		\$1,236,588.26

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	0.75%	\$12,348.00
Stair Construction		\$12,348.00
04 Masonry	3.02%	\$49,823.76
Exterior Walls		\$49,823.76
07 Thermal & Moisture Protection	1.07%	\$17,702.09
Roof Construction		\$17,702.09
08 Doors & Windows	11.85%	\$195,360.48
Exterior Windows		\$161,280.00
Interior Doors		\$34,080.48
09 Finishes	20.45%	\$337,204.02
Ceiling Finishes		\$61,598.88
Floor Finishes		\$102,434.24
Partitions		\$64,446.68
Wall Finishes		\$108,724.22
11 Equipment	4.08%	\$67,200.00
Other Equipment		\$67,200.00
13 Special Construction	10.38%	\$171,182.79
Communications & Security		\$77,060.69
Sprinklers		\$94,122.10
15 Mechanical	28.55%	\$470,728.74
Cooling Generating Systems		\$332,128.74
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$98,280.00
16 Electrical	13.80%	\$227,485.44
Electrical Service & Distribution		\$227,485.44
19 FF&E	6.06%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$1,649,035.33

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$9,069.69
Force Protection	9.00%	\$164,070.77
General Conditions	10.00%	\$164,903.53
Total Additional Hard Cost		\$338,044.00

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$198,707.93
SIOH Conus	6.50%	\$142,076.17
Design	10.00%	\$198,707.93
08 MYr Inflation Fct	9.93%	\$250,888.54

Total Soft Cost	\$790,380.57
Total Project Cost for Renovation	\$2,777,459.90

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.76%	\$58,164.33
Site Earthwork		\$58,164.33
03 Concrete	15.89%	\$334,477.33
Floor Construction		\$193,164.13
Slab on Grade		\$42,991.20
Stair Construction		\$12,348.00
Standard Foundations		\$85,974.00
04 Masonry	6.45%	\$135,681.19
Exterior Walls		\$135,681.19
07 Thermal & Moisture Protection	7.25%	\$152,543.97
Roof Construction		\$46,040.10
Roof Coverings		\$106,503.87
08 Doors & Windows	10.20%	\$214,648.56
Exterior Doors		\$16,506.00
Exterior Windows		\$161,280.00
Interior Doors		\$36,862.56
09 Finishes	13.24%	\$278,593.39
Ceiling Finishes		\$46,157.83
Floor Finishes		\$103,699.21
Partitions		\$73,715.00
Wall Finishes		\$55,021.34
10 Specialties	0.12%	\$2,533.44
Fittings		\$2,533.44
11 Equipment	1.60%	\$33,600.00
Other Equipment		\$33,600.00
13 Special Construction	4.92%	\$103,512.70
Communications & Security		\$46,597.91
Sprinklers		\$56,914.79
15 Mechanical	25.98%	\$546,915.26
Cooling Generating Systems		\$200,835.26
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$305,760.00
16 Electrical	6.85%	\$144,228.00
Electrical Service & Distribution		\$144,228.00
19 FF&E	4.75%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$2,104,898.17

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$11,576.94
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$210,489.82

Total Additional Hard Cost	\$222,066.76
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Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$116,348.25
SIOH Conus	6.50%	\$158,815.36
Design	10.00%	\$232,696.49
08 MYr Inflation Fct	9.93%	\$281,498.12
Total Soft Cost		\$789,358.22
Total Project Cost for Replacement		\$3,116,323.14

INSERT BUILDING 1113 FLOOR PLANS HERE



Building 1114
First Street

Building 1114

Building 1114 was constructed in 1954. The 16,926 square foot facility contains 18 lodging units, 17 multi room units and 1 multi occupancy room. The building is functioning as 18 standard stay units.

Significant Assumptions

The replacement and renovation cost models are based on 10 standard rooms and 10 extended stay units.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule.

All costs are adjusted by the Area Cost Factor of 168% for Ft Richardson.

Cost Analysis

Renovation Cost	\$2,777,460.00
Replacement Cost	\$3,116,325.00
Renovation to Replacement Cost Ratio	89.13%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 1114 is not recommended.

Attributes

01.Number of Units Constructed	39
02.Number of Units Used	18
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	18
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	17
11.Operating as Extended Stay	0
12.Operating as Family Suite	1
13.Renovated to Standard	10
14.Renovated to Extended Stay	10
15.Renovated to Family Suite	0
16.Delta renovation	2

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms and a dinette set in the kitchen. All are in fair condition. Soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. All are in fair condition.
- Recommendation: Replace all hard and soft goods in guest rooms.

Foundations

Standard Foundations

- Analysis: No clear failures can be seen from perimeter. Foundation seems to be functioning appropriately.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The basement area and walls show no signs of stress. The substructure is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The structure is wood frame construction with wood decking for the second floor. The superstructure is in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are metal lap siding over 1x6 diagonal sheathing. The siding is in fair condition, but the sheathing does not supply proper shear resistance in this earthquake prone area.
- Recommendation: Replace siding and sheathing.

Exterior Windows

- Analysis: The windows are aluminum framed, insulated units in fair condition
- Recommendation: Replace the windows.

Exterior Doors

- Analysis: The exterior doors are steel in steel frames in good condition.
- Recommendation: No corrective action required.

Roofing

Roof Coverings

- Analysis: The roofing system was modified from a flat roofing system to a pitched roof in 1985.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: The partitions are drywall on wood studs in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The interior doors are wood in a wood frame. Most are beyond their useful lives.
- Recommendation: Replace interior doors in standard units.

Fittings

- Analysis: There are no toilet partitions in this building
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are wood framed, covered with carpet and have wood handrails. The stairs are too narrow to comply with current codes.
- Recommendation: No corrective action required, however, stair width should be increased during any major remodel

Interior Finishes

Wall Finishes

- Analysis: Most of the interior walls are painted drywall in fair condition.
- Recommendation: Repaint the interior partitions.

Floor Finishes

- Analysis: Floor finishes include sheet vinyl in the guest bathrooms with carpet in the guest rooms and common areas.
- Recommendation: Replace carpet and sheet vinyl.

Ceiling Finishes

- Analysis: Ceilings are painted drywall in fair condition
- Recommendation: Repaint the ceilings.

Plumbing

Plumbing Fixtures

- Analysis: Each unit has an individual rest room containing a lavatory, a water closet and a built in place shower. Ventilation is a constant volume induced draft system. The plumbing fixtures are in fair condition, but do not meet the standard for low volume water closets and do not have vanities.
- Recommendation: Replace plumbing fixtures when replacing domestic water distribution system.

Domestic Water Distribution

- Analysis: Hot water is produced from a gas fired water heater located in each apartment. The piping is galvanized and is in poor condition.
- Recommendation: Replace the domestic water system.

HVAC

Cooling Generating Systems

- Analysis: Heating is provided by new gas-fired boilers. The heating piping is original and is damaged. The heating control valves are failing and unable to control temperature in rooms. The building does not have a cooling system.
- Recommendation: Replace the heating piping and control valves.

Fire Protection

Sprinklers

- Analysis: The building does not have a sprinkler system.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Panelboards, receptacles, and wiring are original and need to be upgraded. Several of the receptacles only allow for a two prong plug.
- Recommendation: Upgrade the electrical system with new panels and branch circuits.

Communications and Security

- Analysis: The fire alarm system was upgraded within the last 5 years and is in good condition. The fire panel emits a radio signal directly to the fire department.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: There are no back of the house function at this location and there is no kitchen equipment.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Administrative functions are located in Building 602 and not included in this building. The central laundry facility is located in the basement of Building 57. There are small storage spaces located in the basement.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 600, and are not included in this building.

- **Standard Guest Room**

The bathroom finishes, fixtures and lighting are not to standards. The closet lacks sufficient hanging space. The Living/Bedroom areas lack sufficient electrical outlets.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
07 Thermal & Moisture Protection	6.79%	\$49,823.76
Metal Lap Siding: Beyond Useful Life		\$49,823.76
08 Doors & Windows	12.54%	\$92,047.94
Al. Windows - Beyond Useful Life		\$35,543.49
Wood Door - Beyond Useful Life		\$56,504.45
09 Finishes	25.27%	\$185,540.18
Carpet: Beyond Useful Life		\$48,113.91
Interior ceilings: Paint Failing		\$10,602.87
Sheet Vinyl: Beyond Useful Life		\$4,226.14
Vinyl Wall Covering: Beyond expected useful life		\$122,597.26
15 Mechanical	22.21%	\$163,049.68
Heating piping: Beyond expected useful life		\$50,726.88
Lavatory: Damaged or failing		\$13,388.35
Pipe, domestic water: Damaged or failing		\$65,640.21
Water closet: Damaged or failing		\$33,294.24
16 Electrical	20.94%	\$153,726.31
Branch Circuits: Beyond Expected Useful Life		\$89,215.84
Panelboard: Beyond expected useful life		\$64,510.47
19 FF&E	12.26%	\$90,000.00
Hard and soft goods: Beyond expected useful life		\$90,000.00
Total Raw Cost	100.00%	\$734,188.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,038.03
Force Protection	9.00%	\$73,048.04
General Conditions	10.00%	\$73,418.80
Total Additional Hard Cost		\$150,504.87

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$88,469.29
SIOH Conus	6.50%	\$63,255.54
Design	10.00%	\$88,469.29
08 MYr Inflation Fct	9.93%	\$111,701.28
Total Soft Cost		\$351,895.39
Total Project		\$1,236,588.26

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
03 Concrete	0.75%	\$12,348.00
Stair Construction		\$12,348.00
04 Masonry	3.02%	\$49,823.76
Exterior Walls		\$49,823.76
07 Thermal & Moisture Protection	1.07%	\$17,702.09
Roof Construction		\$17,702.09
08 Doors & Windows	11.85%	\$195,360.48
Exterior Windows		\$161,280.00
Interior Doors		\$34,080.48
09 Finishes	20.45%	\$337,204.02
Ceiling Finishes		\$61,598.88
Floor Finishes		\$102,434.24
Partitions		\$64,446.68
Wall Finishes		\$108,724.22
11 Equipment	4.08%	\$67,200.00
Other Equipment		\$67,200.00
13 Special Construction	10.38%	\$171,182.79
Communications & Security		\$77,060.69
Sprinklers		\$94,122.10
15 Mechanical	28.55%	\$470,728.74
Cooling Generating Systems		\$332,128.74
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$98,280.00
16 Electrical	13.80%	\$227,485.44
Electrical Service & Distribution		\$227,485.44
19 FF&E	6.06%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$1,649,035.33

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$9,069.69
Force Protection	9.00%	\$164,070.77
General Conditions	10.00%	\$164,903.53
Total Additional Hard Cost		\$338,044.00

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$198,707.93
SIOH Conus	6.50%	\$142,076.17
Design	10.00%	\$198,707.93
08 MYr Inflation Fct	9.93%	\$250,888.54

Total Soft Cost	\$790,380.57
Total Project Cost for Renovation	\$2,777,459.90

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	2.76%	\$58,164.33
Site Earthwork		\$58,164.33
03 Concrete	15.89%	\$334,477.33
Floor Construction		\$193,164.13
Slab on Grade		\$42,991.20
Stair Construction		\$12,348.00
Standard Foundations		\$85,974.00
04 Masonry	6.45%	\$135,681.19
Exterior Walls		\$135,681.19
07 Thermal & Moisture Protection	7.25%	\$152,543.97
Roof Construction		\$46,040.10
Roof Coverings		\$106,503.87
08 Doors & Windows	10.20%	\$214,648.56
Exterior Doors		\$16,506.00
Exterior Windows		\$161,280.00
Interior Doors		\$36,862.56
09 Finishes	13.24%	\$278,593.39
Ceiling Finishes		\$46,157.83
Floor Finishes		\$103,699.21
Partitions		\$73,715.00
Wall Finishes		\$55,021.34
10 Specialties	0.12%	\$2,533.44
Fittings		\$2,533.44
11 Equipment	1.60%	\$33,600.00
Other Equipment		\$33,600.00
13 Special Construction	4.92%	\$103,512.70
Communications & Security		\$46,597.91
Sprinklers		\$56,914.79
15 Mechanical	25.98%	\$546,915.26
Cooling Generating Systems		\$200,835.26
Domestic Water Dist		\$40,320.00
Plumbing Fixtures		\$305,760.00
16 Electrical	6.85%	\$144,228.00
Electrical Service & Distribution		\$144,228.00
19 FF&E	4.75%	\$100,000.00
Interior FF&E allowance		\$100,000.00
Total Raw Cost	100.00%	\$2,104,898.17

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$11,576.94
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$210,489.82

Total Additional Hard Cost	\$222,066.76
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Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$116,348.25
SIOH Conus	6.50%	\$158,815.36
Design	10.00%	\$232,696.49
08 MYr Inflation Fct	9.93%	\$281,498.12
Total Soft Cost		\$789,358.22
Total Project Cost for Replacement		\$3,116,323.14

INSERT BUILDING 1114 FLOOR PLANS HERE

Army Lodging Wellness Recommendation

Appendix

ROOM / SPACE	1-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Facility on Post Only	Note
Public Areas											
Exterior Entrance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Vestibule	100	100	150	150	200	200	200	200	200		In Main Lodging facilities square footage included in Lobby
Lobby (includes vestibule at Main Lodging facilities)	300-500	300-500	500-800	500-800	800-1000	800-1000	1,000-1,200	1,000-1,200	1,200-1,500	X	Includes square footage of vestibule at Main Lodging facilities
Front Desk	2 station / 100 s.f.	2 station / 100 s.f.	2 station / 100 s.f.	3 station / 150 s.f.	3 station / 150 s.f.	3 station / 250 s.f.	3 station / 250 s.f.	4 station / 300 s.f.	4 station / 300 s.f.	X	
Bell Cart Station	2 carts / 24 s.f.	2 carts / 24 s.f.	3 carts / 36 s.f.	3 carts / 36 s.f.	4 carts / 48 s.f.	4 carts / 48 s.f.	6 carts / 72 s.f.	6 carts / 72 s.f.	8 carts / 96 s.f.		Not required at facilities w/out interior corridors if building is retained.
Breakfast Bar (Seat/Svc)	550	550	550	550	550	550	550	750	1,000	X	Needed at secondary facility, if it is a remote location. CFSC requirement min 550
Passenger Elevators			1 @ 64 s.f. 50-99 rooms 2 @ 64 s.f. 100-149 rooms	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. 400-499 rooms 3 @ 64 s.f. 500-599 rooms	3 @ 64 s.f. each		If building is over two stories high
Stairs	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each		
Public Corridors	**	**	**	**	**	**	**	**	**		Minimum 6' wide
Public Telephone Area	2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	3 phones / 18 s.f.	3 phones / 18 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.		House phone in secondary buildings. Pay phones & house phones at Main facility
Vending - Full Service	1 per building / 70 s.f.	1 per building / 70 s.f.	70	70	70-105	105-140	140-210	210-280	280+		1 for every other floor to support up to 200 units / 70 s.f. each
Vending - Ice Only	1 per building / 30 s.f.	1 per building / 30 s.f.	30	30	30-45	45-60	60-90	90-120	120+		1 for every other floor to support up to 200 units / 30 s.f. each
Women - Lobby	100	100	200	200	260	260	315	315	350	X	
Men - Lobby	100	100	200	200	260	260	315	315	350	X	
Multi-Purpose Rm	250	250	250	250	250	250	250	250	250	X	
Study Rooms	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 per 25 extended stay units of 250 s.f. each at posts with schools facilities
Guest Laundries	192	192	192-384	384-576	576-768	768-1152	1152-1536	1536-2112	2112+		CFSC requirement 2w/d for every 75 guest rooms
Gear Wash Rooms	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each		Only at facilities with outdoor training
Guest Bulk Storage	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 unit for every 4 family suites of 25 ea. 40 w/circ.
Guest Rooms											
Guest Room - Standard	300	300	300	300	300	300	300	300			
Guest Room - Ext. Stay	300	300	300	300	300	300	300	300			
Guest Room - Suites	450	450	450	450	450	450	450	450			

ROOM / SPACE	1-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Facility on Post Only	Note
Back-of-House Areas											
Manager's Office	180	180	180	180	180	180	180	180	180	X	
Assist. Mgr. Off.	-	-	0 50-99 units 120 100-149 units	120	120	120	120	120	120	X	
Front Office Mgr.	100	100	100	100	100	100	100	100	100	X	
Admin. Offices	2 space / 200-250 s.f.	2 space / 200-250 s.f.	2 spaces / 200-250 s.f.	2 spaces / 200-250 s.f.	5 spaces / 500-600 s.f.	5 spaces / 500-600 s.f.	7 spaces / 800-900 s.f.	7 spaces / 800-900 s.f.	10 spaces / 1,100-1,200 s.f.	X	
Cash Room	50	50	75	75	100	100	125	125	150	X	
Luggage Storage	-	-	75	75	100	100	100	100	100	X	
Admin. Conf. Rm.	250	250	250	250	350	350	350	350	350	X	
Housekeeping Off.	120	120	120	120	120	120	120	120	120	X	
Dirty/Clean Linen Stor.	50	50	50	50	100	100	200	200	400	See Note	At all facilities w/out in-house laundry
In-House Laundry	500	500	500	500	500	500	750	750	900	X	CFSC requirement min 500 s.f
Receiving Office	75	75	75	75	75	75	75	75	75	X	
Maintenance Area	100	100	175	175	250	250	400	400	600	X	
Kitchen Prep Room	150	150	150	150	150	150	150	150	150	X	facility, if it is a remote location.
Break Room		140	210	210	280	280	350	350	420		
Staff Toilet - Men			200	100	100	100	150	150	200		
Staff Toilet - Women		100	100	100	150	150	200	200	250		
Access Corridor	**	**	**	**	**	**	**	**	**		
Receiving	150	150	150	150	150	150	150	150	200	X	
Housekeep. Rms.	128	128-512	512-1280	1280-1792	1792-2560	2560-3456	3456-5120	5120-6912	6912+		128 s.f. for each 15 guest rooms
Service Elevator	80	80	80	80	80	80	80	80	80		
Data/Commo Rm.	100	100	100	100	150	150	150	150	150		
Switch Closets	16 *	16 *	16-48 *	48-64 *	64-96 *	96-128 *	128-144 *	144-256 *	256+ *		1 closet of 16 s.f. for approximately 50 guest rooms
Janitor Closet	50	50	50	50	50	50	50	50	50	X	Only at first floor of Main Lodging facility.
Mechanical Room	*	*	*	*	*	*	*	*	*		
General Stor. Rm.	500	500	500	500	500	500	500	500	500	X	
Bulk Storage Rm.	500	500	500	500	500	500	500	500	500	X	
Electrical Room	140 *	140 *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *		One electrical room to serve no more than 100 rooms.
Elevator Equip.Rm.	84	84	84	84	84	84	84	84	84		
EXTERIOR											
Playground (Outdoor)										X	Play ground required at facilities with family stays.
Grounds Maintenance	400	400	400	400	400	400	400	400	400	X	

* Mechanical/electrical/equipment Spaces to be determined by contractor based on appropriate code and recommended systems.

** Corridors to be determined based on building layout.